



PHOTO: DON MACCARTER

Conservation strategy

New Mexico's wildlife plan is among nation's best.

Please see Page 5.

New Mexico wildlife

www.wildlife.state.nm.us

VOL. 51, NO. 2 ■ SUMMER 2006

A class act...

Hunting in New Mexico has never been safer thanks to state's hunter education program

IN THIS ISSUE:

4. **Bright future at Fenton Lake**

Forest thinning project benefits wildlife, park visitors.

6. **Fall hunting outlook**

What to expect this season in your area of the state.

8. **Partners for game birds**

Landowners pitch in to improve habitat.

10. **Ancient hunters**

Recent archaeological discoveries illustrate how prehistoric New Mexicans hunted and gathered wild plants and animals.

departments

2. **game&fishnews**

- Smallmouth bass record
- Mandatory harvest reports
- Alton Ford: trapper, conservationist
- Gray-banded kingsnake
- and much more ...

16. **kidtracks**

Hide and seek

Thick cattails are home to soras and Virginia rails.

A publication devoted to the enjoyment and appreciation of New Mexico wildlife.



Published by The New Mexico Department of Game and Fish



(left) Students get hands-on experience as they learn how to safely handle a variety of firearms during hunter education classes.

(below) Novice shotgunners got some expert guidance from Hunter Education Instructor Gary Ashcraft at the 2006 New Mexico Outdoor Expo at Albuquerque Shooting Range Park.

PHOTOS: DAN WILLIAMS



By DAN WILLIAMS

Maili Ortega first recognized a need for her sons to learn about gun safety when her youngest son Daniel was shot in the neck with a BB gun.

"It was a wake-up call for us," said Ortega, a single mother. "After that, we decided if we were going to be outdoors and use guns, we had to learn to do it right, to do things safely."

Turns out, the BB gun incident wasn't the last wake-up call for the Ortegas. After Maili attended a hunter education course with her older son, Joe, the importance of safety training hit home again — this time in a much more dangerous setting.

"It was opening morning on an elk hunt. We had scouted all summer and spent a lot of time getting our blinds together, and we had hiked in early — in the dark," she recalled. "Then, just as it was getting light, we started hearing gunshots. Bullets were whizzing all around us. Hunters were out there doing everything we were taught

not to do. For a single mom out there with two boys, it was really eye-opening."

The experience prompted Maili Ortega to switch to bow hunting, when fewer hunters are in the field. And it wasn't long before she was sitting through another hunter education class, this time with her younger son, Daniel. "It's important," she said, "so we can be outdoors doing what we really enjoy."

Hunter education is more than important in New Mexico. By law, it's mandatory for anyone under 18 who wants to hunt with a firearm. The law has been in place since 1976, and like similar laws nationwide, it has had a huge impact on numbers of hunting injuries and fatalities.

"The numbers speak for themselves," said Mark Birkhauser, Hunter Education Coordinator for the Department of Game and Fish and current

...continued on page 13



Alton Ford, 78 Lifelong tracker, conservationist

By DAN WILLIAMS

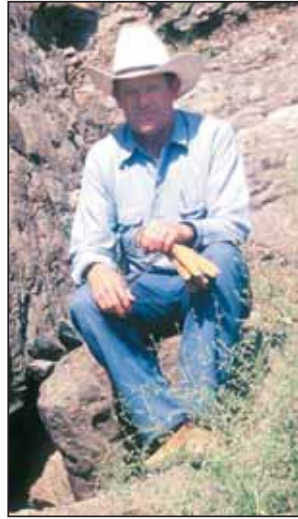
Alton Ford rarely met a coyote he couldn't catch, a lion he couldn't track, or a person he couldn't call his friend. The lifelong trapper, hunter and conservationist had a way of making lasting impressions everywhere he went.

"Alton had a way about him that caused people to respect him," said Bill Huey, who was Department of Game and Fish Director in 1975, when Ford became manager of the Red Rock Wildlife Area. "Anyone who knew Alton knew him as a good friend. He was a sterling character."

Alton Ford died Monday, April 24, in Red Rock, where he lived and worked most of his 78 years. He is survived by his wife, Anita, and three sons. He will be remembered by almost everyone who met him, especially those lucky enough to hear his colorful stories about trapping, hunting and people in southwestern New Mexico.

Ford was born May 5, 1927, in Silver City, one of a long line of ranchers, farmers, hunters and trappers who settled in southwestern New Mexico as homesteaders in the late 1800s. A frequent visitor to his grandfather's ranch in Red Rock, it wasn't long before young Alton discovered his passion: tracking animals. It was an activity he pursued the rest of his life.

"All my education has been from my experience tracking," Ford said during a 2003 interview. "Of everything I've done - everything that's amounted to anything - tracking has been the most important part of it."



Alton Ford spent much of his life protecting New Mexico's desert bighorn sheep.

PHOTO: CHARLES M. BOGERT

Assistant Department Director Homer Pickens hired 21-year-old Ford in 1948 as a mountain lion hunter and trapper in the Big Hatchet Mountains. For \$200 a month, he was to protect the state's native desert bighorn sheep herd from predators. At that time, Department employees in the field were either trappers or law enforcement officers.

A World War II U.S. Army veteran, Ford was called to serve again in 1953 and was stationed in

Austria for two years. When he returned to New Mexico, he took a job trapping for the U.S. Fish and Wildlife Service. Five years later, he rejoined the Department of Game and Fish, where he worked as a trapper and Red Rock Wildlife Area manager until his retirement in 1987. After he retired, he continued working for the Department as a contractor at Red Rock.

Huey said he remembers Ford as an articulate story teller and a dedicated conservationist.

"He was an outstanding person who had the most acute ability of reporting facts of anybody I knew," Huey said. "When he saw something, he knew just how to communicate its relevance."

The Department of Game and Fish was fortunate to have interviewed Alton Ford on video in 2003 as part of a project to preserve the agency's history. Here are some snippets from that interview:

On being a good tracker:

"You need a pretty good eye... and a real curious mind."

The smartest animals:

"There are some smart ones of all species, but coyotes are the smartest. It makes no difference what you do; a coyote is going to know you were there. The trick is not to let them know you've set a trap."

On Mexican wolves:

"Don't let them fool you; they'll kill everything they find... Unlike coyotes, wolves will kill for the sport of it."

Being a trapper most days,

gold-panner on others:

"We didn't get rich, but we made a good living and really had a good time."

About wildlife biologists:

"One of the most dangerous things to wildlife is a biologist with a plan."

His hero: Elliott Barker (New Mexico state game warden).

"He was a good hunter, a real outdoorsman and one of the first really sincere conservationists." ■

Mandatory harvest reporting system starts this year for hunters, trappers

Beginning this year, all deer and elk hunters, and furbearer hunters and trappers in New Mexico will be required to report their harvest results or risk losing the ability to participate in the next season's special hunt drawings under a new system

adopted by the State Game Commission.

The New Mexico Hunter-Trapper Reporting System, approved at the Commission's May 25 meeting in Clayton, will improve the Department's ability to manage the

state's wildlife and hunting opportunities. Typically, only one in four hunters returned harvest questionnaires under the old system.

Under the new system, everyone who is licensed or has a permit to hunt deer or elk must report the results of their hunting efforts by Feb. 15, 2007. Furbearer hunters and trappers must report their harvest results by March 31, 2007. License buyers who do not report will have applications for the following season's special hunt drawings rejected. Hunters who miss the deadline can still participate in the drawings if they report their harvest and pay a late fee.

Reporting harvest results will take only minutes by telephone or the Internet. Reports can be made online at www.newmexico-hunt.com after Oct. 1, 2006; or by calling toll-free, (888) 248-6866 after Jan. 3, 2007. Details will be supplied with all permits and licenses, published in rules and information booklets, and available on the Department of Game and Fish Web site, www.wildlife.state.nm.us. Those who report online may be eligible for special incentive hunt drawings. ■

What the new system will do for you:

- Improved harvest information will allow the Department to better estimate the hunting impact on our deer and elk herds.
- Accurate harvest information is a useful check of population estimates
- Improved herd estimates will mean better management overall, and in some cases, more hunting opportunities.

How will it work?

- All deer and elk hunters and furbearer hunters and trappers simply make a free phone call or access a special Web page and provide harvest information annually.
- Hunters provide their first and last name, date of birth and the last four digits of their Social Security number to identify themselves, and then provide answers to three or four questions about their hunts.
- A Feb. 15 deadline will ensure hunters provide their harvest information in time to allow them to successfully apply by the early April deadline for the big-game drawing.
- If hunters fail to provide harvest information, their applications will be rejected for any special draw hunts the following hunting season unless they pay a late fee (no more than \$20) and supply their hunt information. ■

NEW MEXICO DEPARTMENT OF GAME AND FISH

Bruce Thompson
Director
Tod Stevenson
Deputy Director
Luke Shelby
Assistant Director for Resources
Patrick Block
Assistant Director for Support Services
Mike Sloane
Fisheries
R. J. Kirkpatrick
Wildlife Management
Dan Brooks
Law Enforcement
Martin Frentzel
Public Information and Outreach
Lisa Kirkpatrick
Conservation Services
Robert McGee
Information Services

AREA SUPERVISORS
Luis Rios / Las Cruces
Lief Ahlm / Raton
Roy Hayes / Roswell
Brian Gleadle / Albuquerque

STATE GAME COMMISSION

Leo Sims, Chairman
Hobbs
Tom Arvas, Vice-Chairman
Albuquerque
Alfredo Montoya
Alcalde
David Henderson
Santa Fe
M. H. "Dutch" Salmon
Silver City
Peter Pino
Zia Pueblo
Terry Riley
Tijeras

Providing New Mexico and its wildlife

Year-round
Excellent
Services



NEW MEXICO WILDLIFE is published by the Public Information and Outreach Division, New Mexico Department of Game and Fish.

Contact NEW MEXICO WILDLIFE for permission to reprint artwork, photographs or articles.

Printed by Target Graphics, Chattanooga, Tenn., under contract with the State of New Mexico. Printed in the United States.

Volume 51, Number 2

Lance Cherry
Chief of Publications
Dan J. Williams
Editor
The Studio/Janelle Harden
Design and Production
Letters may be sent to:
NEW MEXICO WILDLIFE
P.O. Box 25112
Santa Fe, NM 87504-5112
Telephone (505) 476-8004



visit our Web site at:
<http://www.wildlife.state.nm.us>



Report supports Governor Richardson's petition to protect N.M. roadless areas

The New Mexico Department of Game and Fish has released "Wildlife, Habitat, and Hunting: New Mexico's Roadless Areas," a 38-page report supporting Governor Bill Richardson's petition to protect the state's 1.6 million acres of roadless National Forest lands, and 100,000 acres of the Valle Vidal from future road construction.

The report illustrates the value roadless areas have on wildlife, recreation, the state's rural communities and New Mexicans' quality of life. Of the 1.6 million acres of roadless areas in New Mexico's six national forests, 351,000 acres are not currently protected from additional road building by existing forest plans.

"Our roadless wilderness areas are truly cherished by the people of New Mexico as well as people who come here to fish and hunt," Governor Richardson said. "Roadless areas create unique, valuable recreation opportunities – real backcountry available to our hunters and anglers," Governor Richardson said.

The report emphasizes the effects backcountry roads have on wildlife habitat and ecosystems. It shows how roads, road-building and associated traffic create a cascade of adverse effects to the forest ecosystem, including sedimentation, reduced water quality, introduction of non-native plants and animals, and increased man-caused wildfires. It also provides

facts about roadless areas and examples of their value, including how roadless areas nationwide:

- Occur within 661 of the more than 2,000 major watersheds in the nation, providing clean, fresh water to thousands of communities and millions of people.
- Provide unique, high-quality hunting and fishing opportunities because they serve as core habitat areas for game animals and coldwater fish species.
- Contain essential habitat for more than 2,150 species of threatened, endangered, proposed and sensitive plant and animal species.
- Furnish unique opportunities for human solitude and reflection.

"New Mexico's roadless areas promote ecological health in our watersheds," Department Director Bruce Thompson said. "Road building in these areas could result in degradation of water and habitat quality. Roadless areas support significant and complex wildlife communities. Without them, our hunting and angling opportunities will be dramatically diminished."

The Department's report can be seen at the Department's Web site, www.wildlife.state.nm.us. More information on the Governor's petition is available on the Heritage Forests Campaign site, www.ourforest.org. ■



The gray-banded kingsnake is rare and attractive, making it one of the most popular snakes to keep as pets.

PHOTO: CHARLIE PAINTER

Popularity threatens future of gray-banded kingsnake

As snakes go, the gray-banded kingsnake (*Lampropeltis alterna*) is downright pretty. So pretty, in fact, that it is one of the most popular North American snakes to keep as a pet.

Unfortunately, that popularity poses a threat to the species in New Mexico, where it is seldom seen in its native habitat in the far southeastern corner of the state. Because of its small population, limited habitat and secretive nature, only three gray-banded kingsnakes have ever been confirmed in New Mexico. The snakes also are found in the Trans-Pecos region of West Texas, and in northern Mexico.

The gray-banded kingsnake is nocturnal and nonvenomous, and lives in desert hills and dry mountain slopes in rocky limestone areas. Small rodents and lizards are its primary

prey. The snake has been listed as an endangered species in New Mexico since 2000, and the State Game Commission adopted a recovery plan for the species in 2002. As part of the recovery process, the Department of Game and Fish will conduct patrols in 2006 to prevent illegal collection of the snakes. Biologists also will monitor the presence of the snake through its range in Eddy and southeastern Otero counties.

Because the snakes are so rare in New Mexico, reliable reports of sightings are very valuable to biologists. Anyone who sees a gray-banded kingsnake is encouraged to leave it alone, but note its location, photograph it if possible, and report it to Department of Game and Fish Herpetologist Charlie Painter, (505) 476-8101.

charlie.painter@state.nm.us. ■

Conservationist, biologist joins New Mexico Game Commission

SANTA FE – Terry Riley, an accomplished conservationist and avid outdoorsman, was appointed to the New Mexico Game Commission on June 2 by Governor Bill Richardson.

Riley has a Ph.D. in wildlife biology from Ohio State and a M.S. in wildlife science from New Mexico State University. He has also been a certified wildlife biologist since 1982. He has served as Director of Conservation for the Wildlife Management Institute in Washington, D.C., and has worked as a biologist with the Iowa Department of Natural Resources and the Black Hills National Forest.

"Terry Riley's more than 30 years of wildlife conservation experience will serve him well on the Game Commission," Governor Richardson said. "He is known as a man of integrity and an accomplished hunter – a straight shooter in every sense."

Riley currently serves as Vice President of Policy for the Theodore Roosevelt Conservation Partnership and as a board member of the New Mexico Wildlife Federation. He is also a past president of the New Mexico Chapter of the Wildlife Society.

"I would like to thank Governor Richardson for this honor," Riley said. "I look forward to putting my conservation experience to work to protect our fish and wildlife and to promote outdoor recreation for the people of New Mexico."

Riley, of Tijeras, replaces Guy Riordan of Albuquerque on the commission and will serve the remainder of Riordan's term, which expires Dec. 31, 2007. The Commission comprises seven members who represent the state's diverse interests in wildlife-associated recreation and conservation. Members are appointed by the Governor and



Terry Riley

confirmed by the State Senate. Members are Leo Sims, chairman, Hobbs; Tom Arvas, vice-chairman, Albuquerque; Alfredo Montoya, Alcalde; David Henderson, Santa Fe; M.H. "Dutch" Salmon, Silver City; Peter Pino, Zia Pueblo; and Riley. For more information, visit the Department of Game and Fish Web site at www.wildlife.state.nm.us. ■

State record smallmouth bass still in Ute Lake

UTE LAKE – The New Mexico record for the largest smallmouth bass now belongs to Cale Sanders of Roswell, who caught and released a 7-pound, 3-ounce, 24-inch monster March 31 at Ute Lake.

Sanders, 26, a teacher and coach at Goddard High School, caught the record fish on a white crank bait in about 11 feet of water. The fish measured 16 ½ inches in girth. It was reported in good shape when it was released back into Ute Lake.

Eric Frey, the Northeast Area Fisheries Manager for the Department of Game and Fish, said it was only a matter of time before a state-record smallmouth was caught at Ute Lake.

"We've been seeing some very large smallmouth bass in our nets during the spring walleye spawns," Frey said.

New Mexico's previous record smallmouth was a 22-inch, 6-pound, 14-ounce fish caught in Navajo Lake by David Young in 1999. The North American Record is a whopping 11-pound, 15-ounce fish caught in Dale Hollow Lake, Tennessee, in 1955.



Cale Sanders caught and released the record 7-pound, 3-ounce smallmouth bass March 31 at Ute Lake.

PHOTO COURTESY OF CALE SANDERS

Birders flock to see rare yellow grosbeak

BY KEVIN HOLLADAY

New Mexico birders were stunned in December 2005 by the arrival in Albuquerque of a colorful tropical visitor from Mexico.

When a yellow grosbeak, an extremely rare bird in any part of the United States, showed up in Albuquerque, it immediately began drawing a crowd. While in Albuquerque, the bird spent time in the back yards of two homes. By the time it left in May, more than 800 visitors from 48 states and six countries had come to see the bird and signed a guest book at one home.

In the summer, the bird usually ranges only as far north as northwestern Mexico, but it has wandered into southeastern Arizona on several occasions. It has been seen in New Mexico before, but never so far north and never during the dead of winter. The event was so



More than 800 people from 48 states and six countries came to see a yellow grosbeak in Albuquerque.

PHOTO: KEVIN HOLLADAY

uncommon that some birders wondered if this particular yellow grosbeak might have been an escapee from the illegal Mexican caged-bird trade.

After entertaining visitors for several weeks at the first house, the yellow grosbeak decided on a change of scenery and headed to the home of Kay Bratton in a quiet neighborhood next to the University of New Mexico campus. The bird could not have found a more gracious host. Bratton put up signs directing visitors to the back yard, provided coffee and donuts, set out extra chairs and even put out fanciful bird sculptures with signs that said, "This is not it -- Keep Looking!"

"We are having the greatest time," Bratton said. "People are coming from all over the country and the world. We have met some of the nicest people on the planet here." ■



Cutting losses

Fenton Lake tree-thinning project makes park safer for visitors, more hospitable for wildlife



(left)
The human-caused Lakes Fire burned 4,600 acres around Fenton Lake in June 2002.

PHOTO: BILL PENTLER

By DAN WILLIAMS

Randy Trujillo has seen the hillsides above Fenton Lake at their best – and their frightening worst.

“There were times when it would take off and there would be a straight wall of flames from the bottom of the mountain to the top,” Trujillo said. “Flames were jumping hundreds of feet into the sky. There was so much fuel; there was no way to stop it. We just had to stand back and get out of the way.”

Trujillo, a ranger at Fenton Lake State Park, was one of the first on the scene of the 2002 Lakes Fire that burned 4,600 acres in two days. He saw where campers had set fire to an adult magazine, and then abandoned it in a fire pit. He and ranger Bill Pentler battled several spot fires that started when flaming magazine pages scattered in the wind. They watched as one spot fire jumped into thick brush, then into the taller ponderosas.

“All of a sudden, it took on a life of its own,” Trujillo said. “It got real big in a hurry.”

The Lakes Fire spared the campgrounds, but the hillsides around the park were torched. An overgrown forest was rendered to an unsightly, dangerous pincushion of blackened tree trunks – “like the aftermath of a war,” Trujillo said. It was a scene Trujillo and others who visited the park would see for the next four years – until this summer, when a partnership of state and federal agencies began taking steps to reclaim 150 acres of forest within the park.

“As the property owners, we felt it was our obligation to make sure the park was safe and also to do something positive to protect it from future fires,” said Mike Gustin, assistant chief of conservation services for the Department of Game and Fish. “We also wanted to do what we can to improve wildlife habitat and the overall health of the forest.”

Fenton Lake and the surrounding property is owned by the State Game Commission and leased to the State Parks Division of the Energy, Minerals and Natural Resources Department, which manages the park according to a joint powers agreement between the agencies. The key player in the tree-thinning project, however, is the State Forestry Division.

“Forestry arranged for the grant money, and provided most of the expertise to get the job done,” Gustin said. “Game and Fish and State Parks worked together on protecting archaeological sites in the area and addressing some of the project compliance issues.”

Most of the \$205,000 in funding was through a Stevens Fund grant from the U.S. Forest Service.

Lawrence Crane, a timber management officer who is overseeing the project for the State Forestry Division, said the plan is to remove dangerous standing dead trees, and at the same time thin the unburned areas around the park to improve wildlife habitat and forest health. Phase 1 of the project was completed in April. Phase 2, the west side, is scheduled to start in October.

“The whole east side technically is done,” Crane said. “When the project is completed this fall, the whole area will be safer for the public and we’ll have better control over the outbreak of bugs that’s happening in there. It will be better for fire prevention, better for forest health and wildlife.”

The scene can be quite striking after the chainsaw crews move through a thinning area. Not much is left standing in the burned areas, where the trees have become so weak and decayed they would fall anyway. Even in the unburned areas, however, crews are instructed to leave standing one to five “wildlife” trees per acre. The rest are left on the ground in a method called “lop and scatter,” with no trees piled higher than 12 inches off the ground. Crane said those trees will gradually decompose over the next five years.



(left)
Wildlife trees, designated with a yellow “W” were protected from the significant tree thinning at Fenton Lake State Park.

(below)
Jim Hirsch, a land specialist with the New Mexico Department of Game and Fish, looks across a large area cleared of trees killed during the 2002 Lakes Fire.

PHOTOS: DAN WILLIAMS



“Once we’re done, the area definitely will be more open,” Crane said. “We’ll also definitely see an increase in wildlife because of the openness. The only downside may be that there might be a little less shade and we’ll see a lot of chips and stumps on the ground for a while. But in the long run, it’s best for the park and the people.”

Jim Hirsch, a wildlife biologist and lands specialist for the Department of Game and Fish, said the thinning project will greatly enhance wildlife habitat on both sides of Fenton Lake and its feeder stream, the Rio Cebolla.

“Wildlife definitely will benefit from this project, including some species of concern such as spotted owls, goshawks, the meadow jumping mouse and flycatchers,” Hirsch said. “I also think we’ll be seeing more osprey, bald eagles, deer and elk.”

All of the thinning activities will continue to be conducted when they will have the least impact on state park activities and visitors. Noise levels are kept at a minimum and cutting near campgrounds is done only when visitors are absent. Park Ranger Trujillo said he hasn’t had any complaints.

“I’ve had a few questions from people who would like to take some of the wood that’s on the ground, and I’ve had to tell them that’s not in the plan,” Trujillo said. “Other than that, most of the comments have been positive. People are happy to see us doing something positive for the wildlife and to prevent another fire like the one in 2002. Nobody wants to see that again.” ■



A conservation springboard

New Mexico wildlife strategy rated among nation's best

The New Mexico Department of Game and Fish took a giant step for wildlife conservation in 2005 with the completion of a written strategy – a blueprint of sorts – that will guide efforts to protect and enhance the state's diverse wildlife ecology far into the future.

The Comprehensive Wildlife Conservation Strategy, also called the state's wildlife action plan, will ensure that New Mexico continues to receive federal funding through the State Wildlife Grants program. Congress has appropriated \$6.2 million to New Mexico through the program since it began in 2001. That amount has been matched by at least \$3 million in state and partner funds.

Congress directed states to develop the wildlife action plans in order to continue to receive the State Wildlife Grants. New Mexico's plan, 635 pages of information and perspective about the state's wildlife and key habitats, was accepted in February 2006 and praised as one of the most comprehensive in the country. Defenders of Wildlife, a national wildlife conservation organization, ranked New Mexico's report as one of the 12 best among plans reviewed from 54 U.S. states and territories.

"This strategy demonstrates our concern for wildlife and habitat resources here and across the nation," Governor Bill Richardson said. "It is our job to keep our wildlife populations healthy and sustainable, and we take that responsibility seriously. We have focused on strategic actions that are intended to keep common species common and work to prevent wildlife from becoming endangered."

The main objective of the plan – and the State Wildlife Grants – is to keep wildlife species off threatened and endangered lists, thus avoiding often controversial and expensive recovery plans and actions. In the past 10 years, annual spending on threatened and endangered species has increased more than sixfold nationwide to more than \$600 million. The grants program, along with state action plans, promotes conservation action before wildlife reaches that critical point.

"This Comprehensive Wildlife Conservation Strategy is the springboard to an important conservation future for wildlife in New Mexico and the Southwest," Department Director Bruce Thompson said. "It is a culmination of two years of efforts on the part of resource professionals, conservation organizations, commodity interests, private individuals, tribal interests, municipal governments and others to construct a better wildlife conservation overview for New Mexico."

Species need help

New Mexico's Comprehensive Wildlife Conservation Strategy focuses on "species of greatest conservation need," key wildlife habitats and the challenges affecting the conservation of both. Planners generally define "species of greatest conservation need," as species that are declining or vulnerable, keystones of ecosystem function, restricted to small geographic areas, dependent on vast areas, and those of high recreational, economic or charismatic interest."

Overall, the plan identified 452 species of greatest conservation need in New Mexico. The list includes amphibians, birds, crustaceans, fish, mammals, mollusks, reptiles and even insects. Excluding insects, birds top the list with 74 species, followed by 66 mollusks and 42 mammals. Individual species "of greatest conservation need" were selected according to their associations with key habitats. For example, Gould's wild turkey, jaguar and Mexican gray wolves were associated with Madrean forests and woodlands, where habitat fragmentation threatens wildlife populations. Species associated with

plains and shortgrass prairie included the bald eagle, black-tailed prairie dog and the tiger salamander; while in riparian areas, beavers, Chiracahua leopard frog and razorback suckers made the list.

Strategies to action

The Comprehensive Wildlife Conservation Strategy not only lists the species of greatest conservation need, it also suggests actions to protect and enhance those wildlife populations and their habitats. Those strategies include working closely with other government agencies, communities, landowners, sportsmen's groups and individuals. Projects funded through the State Wildlife Grants and matching funds have included:

- Establishing and maintaining a refuge to protect the Rio Grande silvery minnow.
- Chiricahua leopard frog restoration.
- Research and inventories of birds that inhabit the short-grass prairie.
- Research of burrowing owl population trends.
- Population surveys of Gunnison prairie dogs.

New Mexico wildlife threats

Habitat degradation or loss is the most significant factor adversely affecting New Mexico's wildlife. As might be expected in a dry state, aquatic habitats and the lands immediately associated with them are at higher risk of alteration than other New Mexico habitats. Conversion to other uses, extraction of minerals or water, excessive removal of biological resources, and pollution present the highest probability of altering key habitats. The presence of non-native aquatic species also has considerable adverse effects upon native fish and other inhabitants of aquatic habitats.

Habitat conversion: Conversion of habitats to urban, residential, commercial, energy, recreation development, agriculture and other land uses have accelerated over the past century. Consequently, large areas of formerly contiguous landscapes have become increasingly fragmented and isolated. Many aquatic habitats have become altered and fragmented by dams and water diversions with such conversions.

Pollution: Concerns about pollution in New Mexico primarily are focused on aquatic habitats. Runoff from livestock feedlots, dairy operations

and urban road surfaces introduces nutrients and contaminants to aquatic habitats. Petrochemicals from extraction sites and refineries also reach these habitats. Petrochemicals and mercury have been found in many of New Mexico's reservoirs. **Consumptive biological uses:** Logging, deforestation, fuel wood collection and improper domestic livestock and wildlife grazing regimes that reduce long-term plant and animal productivity can adversely affect species of greatest conser-



Habitat fragmented by roads and oil and gas development is one of the biggest threats to New Mexico's wildlife.

PHOTO: DAN WILLIAMS

vation need and their habitats throughout New Mexico. In areas where multiple consumptive biological uses occur, concerns persist about the ability of these habitats to sustain viable and resilient wildlife populations.

The Department of Game and Fish strived to involve many interests in developing the Comprehensive Wildlife Conservation Strategy. Public involvement was encouraged through articles in more than 30 newspapers statewide. Drafts of the strategy were made available on the Department's Web site, where reviewers were encouraged to complete an on-line survey or simply share their thoughts by e-mail. Presentations were made to the New Mexico Wildlife Federation and the Native American Fish and Wildlife Society.

The Department also encouraged potential partners in the process by conducting several forums targeting local, state, federal and tribal government agencies and non-governmental organizations representing recreation, conservation, agriculture and energy development interests. In all, the scope, focus and content of the strategy were influenced by more than 170 individuals not associated with the Department of Game and Fish.

For more information or to read the entire text of New Mexico's Comprehensive Wildlife Conservation Strategy, please visit the Department's Web site, www.wildlife.state.nm.us and click on the "conservation" tab. Inquiries may be addressed to Department Planner Bill Graves, (505) 476-8023 or william.graves@state.nm.us. ■



The black-tailed prairie dog has been nominated as a threatened or endangered species.

PHOTO: DAN WILLIAMS

Burrowing owls depend on prairie dog colonies for habitat.

PHOTO: DON MACCARTER





More snow in high country will help hunters in northwest

By ROSS MORGAN

Hunters in northwestern New Mexico are watching the weather forecasts and hoping for late-summer moisture and early snowfall in the high country to improve their chances this fall. Both are needed to make up for an exceptionally dry winter and spring of 2006, when fire restrictions remained in place in some areas well into the summer.

If conditions remain warm and dry, elk and deer are likely to remain at higher elevations longer into the year until snowfall finally pushes them to lower country. This could make hunting difficult in many areas of northern New Mexico where most of the deer and elk are migratory, moving down from the high country as snowpacks grow.

Although hunts on public and private land will improve with more moisture, hunters won't see the full impact of the drought for another season, said Darrell Weybright, chief of big game management for the Department of Game and Fish.

"The dry conditions will be hard on the females and the fawns, and poor nutrition may affect antler size, but otherwise the condition of

the adult animals should be fair to normal," Weybright said. "The drought will have an impact on the herds in the long term, but this year there should be plenty of bulls and bucks to hunt."

This will be the second season for the statewide draw system for public land deer hunts. The draw is complete for this season, but for next year, hunters in the northwest are reminded that the permit and application process is different for private land hunts in Game Management Units 4 and 5A. Hunters wishing to hunt deer in Units 4 and 5A must obtain a specially designated form from the landowner on whose land they wish to hunt and apply with that form to the regular public draw. These forms can be obtained only from the Department of Game and Fish office in Albuquerque.

Antelope hunting in the northwest should remain fair to good this season because of last year's wet spring that contributed to a good survival rate on newborn

fawns. In some areas, the number of permits was increased to maintain target populations. However, continued dry conditions could reverse those trends next year.

For more specific hunting opportunities in the Northwest Area, please contact the Albuquerque office of the Department of Game and Fish at (505) 222-4700 or your local conservation officer. If you are unsure who your local conservation officer is, you can obtain that information from the Albuquerque office. ■

ROSS MORGAN is the Northwest Area big game manager for the New Mexico Department of Game and Fish. He can be reached in Albuquerque at (505) 222-4707 or ross.morgan@state.nm.us.

Early snow in the high country usually means good hunting in northern New Mexico as deer and elk migrate to lower areas.

PHOTO: DON MACCARTER



Wildlife biologists are concerned about the effects the severely dry spring had on fawn survival in the state's already depressed deer herds.

PHOTO: DAN WILLIAMS



Follow the water to success during southwestern hunts

By LUANN TAFOYA

Depending on your outdoor recreation interests, southwestern New Mexico has something for everyone in the fall.

If you're a hunter, now is the time to get the gear out of the closet and clean that lonely rifle. If you were successful in the draw, you might have a chance to hunt deer, elk, or even javelina. You also have the option of purchasing an over-the-counter license for dove or quail. If you are not interested in hunting, you can apply for other wildlife opportunities such as the Department of Game and Fish's new Gaining Access Into Nature (GAIN) program.

If the current trend continues, drought and high temperatures will have a noticeable impact on our wildlife. The drought reduced fawn survival rates in the spring, but this hunting season should be a good one, despite hot and dry conditions. In fact, Kevin Rodden, the Department's elk manager in the Gila National Forest area, says hunters should have an easier time finding elk this year.

"Find a water source and you will find the elk," Rodden says. Although vegetation may not be as plentiful and antler growth may be compromised, elk populations in the Gila look good.

If you were lucky in the draw, "Javelina hunting this year will be awesome," Southwest Area Game Manager Pat Mathis says. If you've never hunted these critters before, it might be something you want to try. Javelina hunting is a challenging opportunity, whether you use a conventional rifle, handgun, muzzleloader or bow.

Small game hunters should have good luck for doves along the river, drains or canals of the Rio Grande Valley. Quail hunting opportunities will depend upon how much rainfall is received in different areas. Continued drought could mean fewer birds – and tough hunting –

this year. Don't forget to get written permission from landowners before hunting on private land.

Wildlife watchers, photographers and others interested in the outdoors can find some exciting opportunities through Gaining Access Into Nature (GAIN), a new program that provides activities not related to hunting or angling. Check out special GAIN tours and dates on the Department Web site, www.wildlife.state.nm. The Southwest Area will have a drawing for bighorn sheep viewing tours in January and February at Red Rock Wildlife Management Area near Lordsburg. The tours give participants excellent changes to see

the endangered bighorn up close in its natural environment. How many times can you say you've seen an endangered animal?

A couple of reminders: If you plan to hunt on federal land you will need to purchase a Habitat Stamp. Every hunter and angler also will need to purchase a Habitat Management and Access Validation for the hunting season. If you're hunting migratory birds, don't forget to get that HIP number on your license. These are a few things that conservation officers will check this year. Good luck and be careful this hunting season. ■

LUANN TAFOYA is the public information officer for the Southwest Area. She can be reached in the Department's Las Cruces office at (505) 532-2106 or luann.tafoya@state.nm.us.



Good water sources are vital to sustaining good populations of quail statewide. The dry spring and summer of 2006 could mean tough hunting this fall and winter.

PHOTO: DAN WILLIAMS



fall hunting forecasts

Northeast antelope, elk in good shape despite extremely dry winter, spring

By CLINT HENSON

The hunting forecast will hinge on the weather this year in Northeastern New Mexico, including the Carson National Forest and Santa Fe National Forest. The region had good precipitation through the winter of 2004-2005 and continuing into the fall of 2005. That break in the recent drought allowed for deer, elk and antelope to regain more desirable birth rates.

Dry conditions through the winter and spring of 2006 were not as good for wildlife. High fire danger, constant winds and skies filled with smoke dominated the early spring season. All public lands enacted fire restrictions and some forests were closed to help reduce the risk of catastrophic fires. These differing weather patterns will bring unique hunting situations to the northeast hunting units. Warm, dry, windy conditions will keep elk at higher elevations longer into the year until deep snow drives herds to lower elevations. Hunters will find most wildlife in areas with reliable water sources.

Even though deer, elk, and antelope entered last winter in good condition, biologists are concerned about the effects the severely dry spring had on birth weights of newborns. Similar droughts in the past caused substantial reductions

in offspring survival.

Antelope populations have been increasing in the northeast corner of New Mexico near Clayton after many years of reduced numbers. Even with concerns for this year's survival of newborn fawns, hunters should be pleased with good numbers of quality bucks.

"After several years of reduced permits, some northeast antelope units have increased to a level that more buck licenses are now available and even some doe permits will be issued", said Michael Catanach, Northeast Area game manager in Raton.

Population surveys in the northeast have shown that numbers of elk and antelope are generally increasing. Both species are near population goals established by the Department of Game and Fish, the U.S. Forest Service and Bureau of Land Management.

The outlook isn't as bright for deer hunting. Like most areas of New Mexico and the western United States, northeastern area mule deer populations are still depressed. Recent studies in New Mexico have shown that nutrition may be the greatest factor in low mule deer population numbers, and drought will further hamper any rebounds by deer herds. Many deer in northern New Mexico have found

that urban areas are the best places to survive and raise their young. Deer often find small towns are the only areas where they can find high quality food and water sources. Unfortunately, deer used to living in towns are much more likely to be killed by an automobile collision.

Normal monsoon rains in July and August could bring enough moisture for wildlife to return to their usual fall behavior. If the region continues to be hot and dry, hunters' best strategy will be to seek game near reliable water sources.



For more information about fall hunting opportunities, contact the Department of Game and Fish office in Raton at (505) 445-2311, or call your local conservation officer. ■

CLINT HENSON is the public information officer for the Northeast Area. He can be reached at (505) 445-2311 or clint.henson@state.nm.us.

Hunters may be hard-pressed to find heavy-antlered bucks this year because deer forage during a drought is not as nutritious.

PHOTO: DAN WILLIAMS



Hunters who hike into the back country should find good populations of Barbary sheep in southeastern New Mexico.

PHOTO: MARTY FRENITZEL

Game and Fish office in Roswell at (505) 624-6135, or call your local conservation officer. ■

MARK MADSEN is the public information officer for the Southeast Area. He can be reached in Roswell at (505) 624-6135 or mark.madsen@state.nm.us.



Hunters should find plenty of game in southeastern units

By MARK MADSEN

Wildlife in southeastern New Mexico endured a dry and difficult winter and spring, but populations bolstered from good precipitation in 2005 remain good and hunters are looking forward to some excellent opportunities this fall. If conditions continue to be dry through August, hunters will find most game concentrated around reliable sources of water.



A wet spring in 2005 sustained pronghorn herds statewide and should make for good hunting this fall. Continued drought could mean tougher hunting in the long term, however.

PHOTO: DON MACCARTER

Fortunately, 2005 was a good year, precipitation-wise, throughout most of southeastern New Mexico, resulting in above-average survival of antelope and deer fawns and elk calves. Antelope hunters can expect to see more bucks during the fall hunts in most antelope game management units. Aerial surveys found healthy populations of bucks, with the Claunch, Corona, and the Santa Rosa areas being among the better places to hunt. Buck quality may be a bit poorer than last year due to the lack of moisture affecting forage in most areas. Muzzleloader antelope hunters can expect a good hunt this fall on Otero Mesa, where there is potential for harvesting some quality bucks.

Elk hunting in the Lincoln National Forest should be excellent this fall. Elk populations in Game Management Units 34 and 36 in the Sacramento Mountains remain high with good bull-to-cow ratios and the potential of finding quality bulls in both units. Elk numbers in the Capitan Mountains of Unit 37 remain relatively low. Once again, water may be a limiting factor this fall and most successful hunters will concentrate their efforts around reliable water sources.

Like the rest of New Mexico and the western United States, mule deer numbers remain low, primarily because of continued drought. Mule

deer populations in southeastern New Mexico are among the highest in New Mexico, with decent legal buck numbers in most units. Units 30, 32, 34, and 37 top the list of good deer units in southeastern New Mexico. For those deer hunters fortunate enough to draw a public permit or with access to private land, huntable numbers of whitetails exist in the lower Sacramento Mountains of Unit 34.

Barbary sheep hunters can expect another good year with high harvest success rates in units 29, 30, and 32. This holds true for those hunters who don't mind spending the time in the field and don't mind a little footwork to get back into those areas of public land with good Barbary sheep populations. Private land hunting in units 32, 36, and 37 should be excellent for those hunters who can afford the trespass fees. While population surveys are not completed for Barbary sheep, numbers seem to be increasing based upon hunter observations.

Bear and mountain lion populations remain good in the southeast, offering excellent potential for a quality hunt experience. Having access to dogs certainly increases your chance of harvesting a bear or lion.

For more information about hunting in southeastern New Mexico, contact the Department of



FLUSH FUNDS

Grants help conservation-minded landowners enhance and restore habitat for game-birds

By CRAIG SPRINGER

I'm leaning against the back of my truck cleaning out my game bag, sifting out the old butterscotch wrappers and spent 20-gauge shells from my last foray afield. It's early. I'm eager to get behind a bird dog on this Roosevelt County ranch owned by George Hay. At daybreak, the sun turns the eastern sky a toasted orange, then rises quickly over the flat horizon.

I pause to watch a marsh hawk skirt over the mesquite and grasses, its wingtips held upward. I catch glimpses of its white rump as the bird wafts over the prairie hunting for food. Suddenly, its presence unnerves a covey of quail, and 50 or 60 birds take to the wing in a flurry. The hawk singles one bird out, but quickly gives up the chase, perhaps holding out for promises of an easier meal.

My promise this day is to see up close and personal what bird hunting can be like on lands properly managed by a landowner who has a view of the long horizon. Hunting guide Bob King of Santa Fe invited me to see some rangeland habitat improvements he helped rancher George Hay install, not just for improving quail hunting, but also to improve the lot of the lesser prairie chicken.

The Hay Ranch has been beneficiary of funding targeted at improving habitat for the little grouse on the prairie, and for quail. Dawn Davis, a prairie chicken biologist with the New Mexico Department of Game and Fish, says the Hay Ranch was awarded \$22,000 in 2003 through the Wildlife Partnerships Grant for private landowners. The money was appropriated by the state Legislature with the express purpose of improving wildlife on private land. To effect a change for wildlife, it obviously takes a willing landowner like Hay. Davis says Hay has a genuine interest in the birds. Being a businessman, he also has a healthy interest in doing what's best for his ranching operation.

The 50-section Hay Ranch is south of Pep on the highway to Lovington. George Hay is a third-generation Roosevelt County rancher, tall and lanky, salt-and-pepper hair, and a little bent-over from his 80-some years of ranch life. His granddad emigrated from Ohio, seeking opportunity in the West. Hay speaks with a Texas drawl, his vowels played out for a good stretch. His ranch is fewer than 15 miles from the Texas state line, and many of his neighbors' ancestors were Texans by birth. Hay says his granddad had wanderlust in Ohio – and his itchy feet had something to do with his coming to New Mexico and establishing the ranch that's been around since 1916. Winter wheat and cow pasture — that's what grows here. And there's the ancillary crop: quail and prairie chickens.

(this page)

Hunting guide Bob King shows a wildlife water station and fencing he and ranch owner George Hay put up to keep cattle and pronghorn away from quail and prairie chicken habitat.

Far eastern New Mexico is the only region of the state that hunters can harvest a mixed bag of scaled quail, top, and bobwhite quail.

PHOTOS: CRAIG SPRINGER



Two species of quail

A high-strung bundle of bird-dog nerves, a pudlepointer, ranges out ahead of us. The dog is an odd breed, of German stock suited well for desert quail hunting. On this day, Candy has enough heart for the hunt to equal two dogs as we walk under a skullcap dome of powdered blue sky, broken only by the remnant cloud bank to the east. My 20-gauge rests over my shoulder and shinnery oak clips my pants from my shins to my knees. The shinnery oak doesn't get much taller than that, yet it produces acorns as big or bigger than larger oak trees. In this country, the shinnery oak is vital habitat for lesser prairie chickens and two species of quail, bobwhites and scaled quail.

The Hay Ranch and some property along the state line southward are the only places in New Mexico where you potentially can bump up scaled and bobwhite quail from the same covers.

Candy ranges out ahead of us, quartering between yuccas and cactus and bunch grasses. King trills on a whistle to hold her close enough. She's intent on finding birds. "She's birdy," says King, starting into a crescendo. "She's birdy, she's on birds . . . we have a point," he says, a little louder, more excited, as her quartering tightens to a zigzag. "Whoa, Candy-girl," he commands with an authority the dog understands. She's locked up tight like a spring, a skinny pencil of a tail wiggling nervously. As King approaches the dog, we hear a peep or two, a nervous rustle of brush and leaves, then the exploding whirr of wings in the wind. A mixed covey of bobwhites and scalies scatter in all directions. Like the morning marsh hawk, I am reminded that prey animals aren't so easily had by predators, even with the benefit of modern firearms. In that covey of 50-plus birds, we dropped only three.

It's no accident the Hay Ranch is flush with wild quail. Hay's conservation ethic and probably his generational roots to his granddad motivate him to do something for the birds – quail and prairie chickens. Lesser prairie chicken numbers are steadily increasing, but not yet to the point where we can hunt them. That's something



King and Hay would like to see changed. Working with the partnership grant, the two men improved bird habitat by fencing off small parcels of land to keep cattle and pronghorn antelope out of the native grasses. They laid 11 miles of pipe, built wildlife water guzzlers and planted native shrubs. But it's the water that might be the elixir.

"Rain cures all in New Mexico," says King, pointing to a small oasis where water spilled onto the prairie floor. We can see the difference in the vegetation. "Water is the key element to habitat improvement; there is the water you want to put on the ground for birds to drink, but we're also adding food and some cover to help birds."



Fence, guzzlers working

King spent 48 hours on a trenching machine to bury pipe around the ranch. Hay and King have put out a dozen guzzlers and cattle exclosures so far and the birds seem to have responded very well. Though Davis says the habitat enhancements appear to be working, although the Department of Game and Fish has not yet conducted a post-treatment population assessment. Today's hunting experience may be a proxy measure of success. We bumped up easily 1,000 quail of both species, and at least 100 lesser prairie chickens took to the wing. These grasslands look sparse and unyielding, but the loose sands, moving continuously, have fresh tracks of birds and mammals almost everywhere. The sparseness of the land is deceiving.

Upland bird populations are naturally cyclic, with ups and downs normally associated with moisture – when it arrives and how much. It's no news that bobwhite numbers aren't what they used to be range-wide. Bobwhite quail were never a dominant species in southeast New Mexico, but things have been worse than what they are today. J. Stokley Ligon, a U.S. Biological Survey (today's U.S. Fish & Wildlife Service) biologist, wrote in his 1927 report to the New Mexico State Game Commission on the status of bobwhite quail:

"The birds evidently were most numerous in the extreme southeast corner of the state and in the Canadian River Valley, near Logan. Today there is hardly more than a trace of the native

Good for chickens

King, whose business is based near Santa Fe, is attached to the Roosevelt County prairies, and he's motivated to see the chickens make a comeback. "It's wide-open and uncluttered ... you can walk forever," King says as he motions with his arms spread toward the horizon. "It's far different than most any other place; I feel alive out here. When we can put hunters on prairie chickens and let them see and do something out here they'd otherwise not be able to do, then our work will be complete."

Davis says the work of private landowners and cooperation with the Department of Game

landowners, like Mr. Hay, can adjust their operations to maintain grasslands while preserving a viable ranching tradition."

As with all investments, the rewards come later. On the Hay Ranch, the sweat-equity of a rancher and a guide, and the grant investment in habitat for birds already seems to be paying dividends. ■

CRAIG SPRINGER is a biologist, freelance writer and avid quail hunter who lives in Edgewood.



(this page, clockwise)
Lesser Prairie Chickens are making a comeback in eastern New Mexico, thanks partly to government grants and habitat-conscious landowners.

A scaled quail sentry watches over a covey from its perch on a fencepost.

PHOTOS: DAN WILLIAMS

birds in this habitat. Their disappearance is wholly due to the destruction of ground cover – weeds and grasses. I was able to learn of three birds having been seen in the sandhills east of Portales, near the Texas line, in April 1926, and a few have managed to exist along the lower Dry Cimarron in Union County. Much of the eastern and southern sections of the state is suitable in altitude, topography, and climate to the bobwhite, but nowhere does favorable protective cover exist continuously... such areas are exposed to grazing abuse."

Ligon knew cause and effect of grazing, and so does George Hay. Bird biologist Davis says part of the management practices Hay has employed for birds and cattle is a more intensive grazing management that, in the end, leaves more grasses on the fields for cows and birds.

and Fish, U.S. Fish and Wildlife Service and the Natural Resource Conservation Service has helped rebuild populations of lesser prairie chickens in eastern New Mexico. Programs such as the two-year Wildlife Partnership Grant and the current Landowner Incentive Program Grant are enticing more and more landowners to take leading roles in conservation. In 2005, 2,500 private acres were committed to conservation actions to enhance or recover range land conditions. The Landowner Incentive Program Grant contributed \$1.3 million toward habitat improvement projects for lesser prairie chickens.

"Preservation of native grasslands and proper management of rangelands will help increase lesser prairie chicken numbers," Davis says. "By understanding the life cycle and habitat needs of the lesser prairie chicken, private

Windmills and water tanks help sustain quail, prairie chickens and other wildlife on New Mexico's eastern grasslands and plains.

Hours of hard work putting in water lines, wildlife guzzlers and fencing have paid off for Bob King and other hunters on the Hay Ranch, where the grass grows tall and the countryside is flush with quail.

PHOTOS: CRAIG SPRINGER



A panorama of people and wildlife



Recent archaeological finds span 9,000 years at New Mexico wildlife management areas

(Above left and right photos) **Scottsbluff spear point fragments and Sierra Vista (or James Allen) point fragments; and a complete spurred end-scraper suggest that stone tool manufacture, animal butchering and hide working were undertaken 8,000 to 10,000 years ago at sites in northern New Mexico.**

(right) **These rare sandstone petroglyphs created during the Archaic period were found near a reliable water source in central New Mexico.**

ARTICLE AND PHOTOS BY ROBERT DELLO-RUSSO

Recent archaeological discoveries at New Mexico wildlife areas have given us exciting glimpses into our cultural past. The discoveries illustrate how people in New Mexico hunted and gathered wild animals and plants over time and how prehistoric farmers in New Mexico adapted to their surroundings. Archaeological sites and objects documented in 2004-2005 provide evidence of human occupations occurring almost as early as the Pleistocene geological epoch (almost 9,000 years ago) and as recently as the mid-20th century.

As part of its mission to provide hunting, angling and other wildlife-associated recreation, the New Mexico Department of Game and Fish is charged with protecting important cultural resources on more than 50 Wildlife Management Areas encompassing more than 175,000 acres statewide. By identifying archaeological sites, the Department seeks to avoid damage, desecration, theft or vandalism, while encouraging responsible use of public lands. For the past few years, the program has begun to form partnerships with people, groups and government agencies with an interest or stake in our national historical heritage, whether it be prehistoric archaeological sites, sites of historical importance, traditional cultural properties or sacred use areas. This approach spans the histories of all ethnic groups and Native American tribes, nations and pueblos in and around New Mexico.



Have you ever been exploring outdoors and found a colorful pottery sherd or a well-crafted arrowhead? There is always a thrill of discovery that accompanies such an event, but are you aware that much of the important scientific information about artifacts resides in their locational context – the spatial relationship between artifacts and other artifacts or features at an archaeological site? Once artifacts are removed from the landscape in which they are found, their information potential is damaged and our understanding of prehistory is diminished.

Archaeological sites and artifacts are precious and irreplaceable. That's why it is illegal to excavate sites or collect artifacts from state or federal lands. Laws protecting cultural resources have been in place since 1902 with the passage of the federal Antiquities Act. Because the

Department is committed to protecting sites on its properties statewide, specific locations of the archaeological finds discussed in this article will not be revealed. Rather, the various archaeological finds discussed below are categorized only by the general regions of New Mexico in which they were found.

Research during 2004 and 2005 covered numerous sites where evidence of human occupation ranged from about 8,000 BC to the present. Those periods of occupation include:

- The Late Paleoindian period represents the end of big-game hunting cultures. You may already be familiar with more well-known Paleoindian groups, such as Clovis or Folsom.
- The Archaic periods represent times when small groups of people made a living by hunting a wide variety of wild game and gathering many wild plants. Late Archaic peoples even began to experiment with growing corn.
- The Basketmaker and Pueblo periods signify the development of farming cultures in New Mexico and include the era when Chaco Canyon was occupied. These peoples are now called Ancestral Puebloans because they are the direct ancestors of the present-day New Mexico Pueblos.
- The Protohistoric period represents the time just prior to the arrival of the Spanish conquistadors in New Mexico.

In all cases, occupation dates are determined by the presence of discarded projectile points such as arrowheads, or other stone tools, ceramic sherds, glass bottles, types of tin cans, metal implements or other time-sensitive artifacts. Time-sensitive artifacts are those that can be associated with a specific period of time. Known as "temporally diagnostic" artifacts, they generally have recognizable and distinctive forms or styles and have been dated elsewhere through radiocarbon (C14) or other dating techniques. Historic period artifacts are often dated by reference to archival sources.

Late Paleoindian occupations

Three open-air sites discovered at a wildlife management area in northern New Mexico provide evidence of Late Paleoindian occupations (8,000 to 6,500 years BC). The Late Paleoindian period occurred at the end of the last major Ice Age, when large migrating mammals such as mammoths, mastodons and very large bison were becoming extinct and newer forms of animal species such as smaller bison, bighorn sheep, deer and elk were expanding their range. The changing climate at the time is thought to have altered the types of wild foods that were hunted and gathered by the Late Paleoindian foragers.

In contrast to earlier Paleoindians, who hunted large bison herds, Late Paleoindian foragers may have had only occasional opportunities to hunt bison and may have also hunted other large game, such as deer, and marsh-related small animals, plants, fish and birds. The presence of fossilized bone at one of the sites suggests that the remains of butchered animals are still buried in place, although the species of animal in this case is still unclear. Further scientific research at these sites may help us evaluate our ideas about Late Paleoindian subsistence.

Temporally diagnostic artifacts at these sites include a Scottsbluff spear point fragment, a Sierra Vista (or James Allen) point base, a largely complete Sierra Vista point, and a complete spurred end-scraper. These, in conjunction with the assemblage of other stone artifacts, suggest that stone tool manufacture, hunting weapon replacement, animal butchering and hide working were undertaken at the sites. Hunting weapons



probably consisted of thrusting spears and atlatls (throwing sticks) and their points were made of a range of different stone raw materials, including dacites, obsidians and cherts.

The changing focus on hunted and gathered foods during the Late Paleoindian period also suggests that Late Paleoindian groups moved across the landscape in new ways. To assess this possibility, laboratory analyses, using XRF (X-ray fluorescence) techniques, are under way to establish where the raw materials for Sierra Vista and Scottsbluff points were found.

Middle Archaic and Late Archaic occupations

The presence of prehistoric hunter-gatherers at wildlife management areas during the Middle and Late Archaic periods is revealed at sites in northern, central and west-central New Mexico by hafted atlatl dart points and petroglyph panels. The open-air sites provide evidence of stone tool manufacturing activities, hunting-related activities and the early use of grinding stones. While the Middle Archaic hunters used San Rafael Side-notched projectile points and stemmed projectile points known as the San Jose or Pinto type, the Late Archaic hunters used corner-notched En Medio style points and knives. Whether the difference in point styles signifies different groups of people or different approaches to hunting technology is currently unknown.

The Archaic petroglyphs, which were pecked into large sandstone slabs lying alongside an intermittent drainage, consist of numerous design elements, including a sunburst, a "one-pole ladder", a circles of dots, a spiral, as well as a more readily identifiable hand outline. Archaic petroglyph panels are relatively rare in New Mexico and are often associated with a reliable water source, such as a spring.

Early Formative (Basketmaker III-Pueblo I) occupations

Formative period occupations in northern, north-central and west-central New Mexico are indicated by obsidian Trujillo or Rosegate corner-notched arrowheads, and a similar obsidian artifact that is thought to have been used as a hafted knife. This knife was found in association with numerous early Basketmaker - Pueblo I type ceramics (undecorated graywares), an abundance of grinding implements and many remnant hearths or campfires. The reduction in projectile point size seen between the Late Archaic period and the early Formative period coincides with the introduction of the bow and arrow around AD 300, which suggests a change in hunting technique and possible changes in hunted prey species.

Ancestral Puebloan and Protohistoric occupations

Several sites at management areas in central, west-central and northwestern New Mexico represent seasonal farming and processing camps occupied by Ancestral Puebloan and Protohistoric groups. At these sites are rock rubble mounds that represent the collapsed remains of masonry structures known as field houses. Field houses are generally thought to have functioned as seasonal habitations and storage facilities for prehistoric farmers and are often associated with animal processing areas. These processing areas were like open-air kitchens that included roasting areas, numerous stone tools, grinding stones, ceramic bowl and jar fragments, and burned animal bone. Deer remains were identified at one of the roasting features.

...continued on page 12



(above)
A small adobe homestead occupied between 1885 and 1920 still contained artifacts and other evidence that offered clues to the occupants' lifestyle.



Rubble mounds such as this one were once masonry structures believed to have been used by prehistoric farmers and hunters for storage and animal processing.

How radiocarbon dating works

In general, archaeologists know that the farther they dig down to find an object, the older it probably is and that objects found at the same level, or stratum, are close in age. This is helpful when comparing the relative ages of two items, but how can we get the actual age? And how can we compare the ages of items found at sites 50 miles apart?

The development of atomic physics in the early 20th century allowed scientists to understand the phenomenon of radioactivity. One naturally occurring radioactive material found in the atmosphere is carbon-14 (C14). As plants and animals use the air, their tissues absorb some of the C14. After they die, though, they no longer absorb the C14 and the material in their tissues starts to decay. Thus, C14 acts as a clock that is started when an organism dies. A proper reading of the clock gives the date, in years before present, of death. Using the radiocarbon technique on charcoal from an ancient campfire will tell archaeologists when the tree (source of wood for fuel) died, not necessarily when the wood was burned in the fire. Charcoal from annual plants, such as corn, provides a closer dating match between the time a plant died and the time people burned the plant in their campfire.





Hunters in the middle and late Archaic periods used different types of projectile points and knives to hunt a wide variety of wild game.

Historic occupations

More recent archaeological remains have been discovered at management areas in the central, west-central and northern portions of New Mexico. A small Historic period homestead, found in the central part of the state, was photographed, recorded and mapped. Based on the presence of certain types of glass bottles, tin cans and automobile parts found at the site, it is estimated that the site was occupied sometime between AD 1885 and 1920. The site currently consists of the remains of two

Period of occupation	Approximate date
Late Paleoindian	8,000-4,500 BC
Middle Archaic	3,500-1,800 BC
Late Archaic	1,800 BC - AD 200
Basketmaker II-Pueblo I	AD 200-1,100
Pueblo II-III	AD 1,050-1,200
Pueblo III	AD 1,200-1,275
Pueblo IV	AD 1,425-1,490
Protohistoric	AD 1,490-1,510
Historic	AD 1,510 - Present

small structures; some scattered trash; a probable privy or outhouse; and a concentration of trash, known as a midden or a dump. The structures at the site were built of terrone (pronounced teh-row-nay) blocks, wood vigas, and a small amount of lumber for window and door frames. Rather than using the more common adobe blocks, which are formed from a mixture of soil and water and are laid in courses like bricks in a wall, terrone (or sod) blocks are actually cut from a grassy or weedy area so the vegetation helped to hold the block together and can be laid either like bricks or stacked on edge. At this site, the blocks were stacked on their edges.

At a management area in the northwest part of the state, the decaying remains of a mobile sawmill have been found. These facilities were quite prevalent during the early part of the 20th century in New Mexico and other western states at a time when the nation was experiencing an economic boom. When the trees in a given area had been cleared, the mill was moved to a new location. Most areas where mobile saw mills operated are identified now only by the remains of the milling process – numerous piles of rotting wood slabs and saw dust scattered near a second-growth forest – usually Ponderosa pine. Occasionally, small cabins or other structures are found in association with the saw mill sites, suggesting that the loggers and sawyers lived, at least seasonally, where they worked.

Always time for hunting

It is apparent from the numerous archaeological resources on wildlife areas that various peoples in many regions of New Mexico have been hunting wild game, gathering and processing wild plants, and growing domesticated plants over several millennia. Hunting parties or campers in the past, as well as in modern times, left clues about their camps in the trash they left behind. From these clues, archaeologists can often determine the number of campers that visited a given site, the length of time the campers remained at the site, the kinds of weapons and other technology that the campers utilized, and even the kinds of foods processed and consumed at the site.



Archaeologists are always delighted to find rare evidence of children, such as this toy airplane manufactured in 1935.

At one more recent campsite in northern New Mexico, occupied sometime during the middle of the 20th century, archaeologists found that the campers drank beer, wine and coffee, smoked tobacco and heated with coal. Not too surprising. But, it also was discovered that not all of the campers were adults. Amidst all the domestic trash was a flattened and rusted child's toy – a Wyandotte Lockheed Vega pressed steel airplane – which was originally manufactured in Wisconsin sometime around AD 1935. As you can probably imagine, evidence of children in the archaeological record is rare – and sometimes the most exciting find of all.

ROBERT DELLO-RUSSO is an archaeologist with the New Mexico Department of Game and Fish. He can be reached at 476-8141 or robert.dello-russo@state.nm.us.



A reduction in the size of projectile points coincides with the introduction of the bow and arrow around 300 AD.

What is XRF?

Archaeologists are often interested in how people and things moved from one place to another in times past. For example, knowing that a Clovis point found in Nebraska was made of obsidian (volcanic glass) from the Jemez Mountains in New Mexico tells archaeologists that obsidian tool stone not only traveled great distances during Clovis times (11-12,000 years ago), but that it also moved in a north-south direction, rather than an east-west direction. Such studies thus provide archaeologists with some understanding of how people (carrying stone) or how stone (traded by people) moved across a landscape.

But how do we accurately compare two types of stone? How do we know the obsidian came from the Jemez Mountains and not Yellowstone Park?

XRF, or X-ray fluorescence spectrometry, is one technique that can reveal the chemical composition of stone objects like projectile points and scrapers. While the chosen artifact is not destroyed in the analysis, its exposure to X-rays produces a trace element "fingerprint" of the specimen that can be compared with the X-ray fingerprint of other unworked stones. Just as with humans, many stone types, such as obsidians, have unique fingerprints. Thus, Jemez obsidians are measurably different in chemical composition from Yellowstone obsidians.



...continued from page 1

president of the International Hunter Education Association. "Hunting-related incidents have dropped from a high of 42 non-fatal and six fatal in 1967, to three non-fatal incidents and one fatality in 2005, and no incidents so far this year."

The International Hunter Education Association's most current nationwide statistics say there were 93 fatal and 805 nonfatal hunting injuries in 2002, down 31 and 12 percent respectively in the past 10 years. The majority of those injuries were caused by "failure to identify target, shooter swinging on game, and careless handling of firearm," subjects that are stressed in all hunter education courses.

Would your instructor hunt with you?

Ed Carpenter, a retired salesman, and David Wildes, a copy-machine mechanic, have been teaching hunter education for the Department of Game and Fish for more than 20 years. They are among a corps of more than 500 volunteer instructors statewide who altogether trained 3,284 students in 2005. Carpenter and Wildes estimate that they've trained more than 2,000 students since they started teaching.

"If you have the skills, it's rewarding to pass them on," said Wildes. He considers his efforts a success if his student can confidently answer "Yes," to a one simple question: "Would your instructor hunt with you?"

"We know we make a difference," Carpenter said. "We see it when the kids handle the firearms; we hear about it when we're out in the community. I've had fathers come up to me in Wal Mart or someplace and tell me that hunting isn't the same since their son took our course. They'll say, 'Now that my son knows the right way to do it, he's making me change my ways.'"

Despite all the positive statistics that say hunting is getting safer – safer than swimming, boating or even golf, according to the National Safety Council – instructors can't help but wonder when they turn on the news and hear stories like these:

Sept. 1, 2001, 8:15 a.m. — A 59-year-old bow hunter from Missouri was shot in the arm and chest with an arrow while he was on his knees scraping up pine needles for his blind in the Santa Fe National Forest. The 36-year-old shooter said he saw movement in the brush and thought it was an elk or a bear. The arrow shot from a 60-pound bow penetrated five to six inches into the victim's chest, collapsing his lung. He survived, and the shooter was charged with negligent use of a deadly weapon.

Sept. 27, 2003, 9 a.m. — Two men from Espanola were standing on opposite sides of a pickup, loading their rifles before heading out to hunt elk near Canjilon Lakes. One of the men loaded his .270-caliber rifle and then set it on the front seat of the truck while he put on his jacket. When he reached for the rifle, it discharged, hitting his hunting partner in the chest and killing him.

Sept. 24, 2005, 4:16 p.m. — A 10-year-old boy was in the back of a pickup, holding a .22-caliber rifle while his father was climbing into the truck during a rabbit hunting trip near Roswell. The boy apparently lost his balance and dropped the loaded rifle, which discharged, sending a bullet into his head. The boy was airlifted to a hospital in Albuquerque, where he died.

Dec. 3, 2005, noon — A 26-year-old Carlsbad man was quail hunting with his 6-year-old son. While the father was getting out of the pickup, his 12-gauge shotgun discharged, severely injuring his own left foot.

Feb. 11, 2006, 5:30 p.m. — U.S. Vice President Dick Cheney, 65, shot his friend and campaign contributor, 78-year-old Harry Whittington, with a .28-gauge shotgun while the two were hunting quail on Whittington's ranch. Whittington was struck in the face, neck and chest by birdshot pellets and was taken to the hospital, where he eventually recovered. Cheney was swinging on a bird when he shot Whittington, who was wearing a blaze orange vest and cap.



Top students earn big rewards

Cheney, who had never taken a hunter education course, could have used some instruction from Dolly Aragon of Pena Blanca, one of the top students in her New Mexico hunter education class.

"I think it's something everyone should have," Dolly said of the 16-hour course. "It's fun and it's not that hard. You just have to pay attention and study the handbook. And in the end, it's fun because you can go out and hunt any animal you want... and be proud of yourself that you did."

Dolly was one of about 60 students who had perfect scores on the hunter education test, an accomplishment that earned her a place in the drawing for a cow elk hunt on Vermejo Park Ranch. The ranch donates 10 cow elk tags each year to students who ace the test. Dolly was one of the lucky ones.

"It was beautiful up there," Dolly said. "I was really nervous, but my father was there to help, and the training helped me remember everything... and I got my cow."

Dolly now carries her hunter education card on hunts with her father, mother and brother. It's a family affair that also inspired her father, Joseph Aragon, to take the test along with Dolly. He is now a certified hunter education instructor.

"I wanted to be an instructor because I wanted to help out my community," Aragon said. "I see a lot of kids out there who need some guidance, and since we've been having classes out here, I've seen a difference – the way they're handling rifles, even BB guns. It's good to know that maybe we're helping them be safer, more responsible. And the best part of it is that I learn with them – every time."

New Mexico's hunter education classes aren't just for kids. Adults attend the classes for various reasons, most commonly to meet hunter education requirements in states such as Colorado, which requires hunters young and old to have completed a certified course. At times, those students can be difficult, Wildes said. But it usually doesn't take long to turn them around.

"We have an area over there in the back of the room we call 'grumps corner,'" he said. "That's where the guys sit who just need certification so they can hunt in Colorado or another state that requires it of all ages. They've been hunting for years; they know it all. Then when the class is over, it's funny how many of them will come up, shake our hand and tell us they learned something new. There are some rewards there."

Jennifer Morgan, assistant hunter education coordinator for the Department of Game and Fish, believes everyone should have hunter education training, no matter what age.

"Even adults should have it," Morgan said. "Frequently there are single parents who bring their children to our class because it teaches them how to handle firearms safely. Then,

...continued on page 14

A perfect score on her hunter education test qualified Dolly Aragon of Pena Blanca for a chance at a cow elk hunt on the Vermejo Park Ranch.

PHOTO:
MARK
BIRKHAUSER



...continued from page 13

they learn other things like how to be responsible, ethics and some things about wildlife and survival that maybe they didn't know. I've never had an adult go through the class who said they didn't enjoy it or that they didn't learn something new."

Firearms safety is for nonhunters, too

Maili Ortega took her two boys to the class because they wanted to go hunting, but she said she would recommend the hunter education class to all families, whether they hunt or not.

"We're talking safety – how to handle firearms and do things right," she said. "You never know when a child is going to be in a situation where there is a gun. It could be at a friend's house, anywhere. Now I know if my boys find a gun, they'll know how to deal with it. Not knowing is why people get hurt."



Nourishing healthy traditions

Morgan said she worries about a gradual decline in the number of younger students taking the hunter education course. She said her best experience as an instructor is getting youngsters hooked on a lifetime recreational activity.

"These days, we're competing with the X-box and all those virtual reality games," she said. "If these kids don't pick up hunting and outdoor sports now, the chances of them picking it up when they're in their 20s or 30s are very slim." She said one benefit of the hunter education program is that it gets students off the couches and into the outdoors.

"When they come to class, they're coming in with essentially a clean slate," she said. "They have no bad habits. They absorb information like a sponge, and we get to give them skills they can use in the field. It's especially



New Mexico has no age restrictions on who can attend hunter education classes. Whether you're 5 or 55, once you get your hunter education card, you can legally hunt and shoot – unsupervised. Without hunter education, it is illegal in New Mexico for anyone under age 18 to possess or shoot a firearm outside a supervised competition or without adult supervision.

Sometimes, instructors question the motivation of a parent who brings a small child to class who is obviously too young to absorb the material.

"You can tell when a father is bringing in a kid just to get an extra license," instructor Willard Dunlap said. "We've had them as young as 5 in here. They may go hunting with their dad, but they'll never shoot. They're too young, too small to even properly hold a gun. We can't do much about that, except teach the kids the best we can. If somehow the kid passes, well..."

New Mexico's Hunter Education Program has certified more than 156,000 students since the training was first required in 1976. The course focuses on firearms safety, but it has changed considerably over the years, with the additions of instruction about bow hunting, survival, game care, wildlife identification and hunter responsibility. Many classes also contain a live-fire session in which students handle and fire various types of firearms at a gun range. Many children and adults appreciate the section about hunting with bows and muzzleloaders, which are becoming increasingly popular. The New Mexico Department of Game and Fish also offers special classes on bow hunting and archery safety. Although hunter education training is not required to hunt with a bow in New Mexico, some other states require it. New Mexico's course is sanctioned by the International Bowhunter Education Program and is accepted by other states.

rewarding to run into those kids or their parents a year or two later and they tell us it's the best class they've ever had... and now they want to go hunting all the time."

Carpenter said his goal is to make sure every student walks away from his class with the skills necessary to be a safe hunter. But he likes to take it a step or two further.

"I'm here mainly to teach them safety, but I like to see them go away with some ethics and a little bit of attitude to go with that," Carpenter said. "I want them to know how to respect wildlife and to treat game properly. We don't want them walking out of here with the attitude that 'everything that flies, dies,' or 'happiness is a bigger gut pile.'"

Carpenter's objectives were shared by Ortega, who said hunter education has helped open doors to a healthy family activity she can enjoy with her sons.

"When I was growing up, the guys went hunting and the girls weren't allowed," she said. "So with my boys I wanted to do something totally different, something we could do to have fun, be outdoors, get as dirty as we want. First we learned how to process animals, then we learned to hunt."

Wildes has seen hunter education undergo many changes since he started teaching in 1978. He and other longtime volunteers worry that shifts toward more online and self-study options may impact the program's effectiveness. But Morgan said the course changes, meant to help offset declining numbers of volunteer instructors and for hunters' convenience, will never fully replace the program's hands-on instruction.

"We will be moving toward online instruction, but we will never take the eight-hour classroom component out of the program," Morgan said. "Without the hands-on activities, there would be no way for us to evaluate how safely a student deals with the firearms in different situations."



The Department currently offers an optional accelerated version of the standard 16-hour classroom and live-fire sessions. The accelerated course is limited to students ages 11 and over and allows students to complete eight hours of home study, followed by eight hours of combined classroom, hands-on exercises and testing activities. Now in its third year, the course has been popular with adults who need certification to hunt in other states or for young students from families with hunting or outdoor backgrounds.

Veteran instructors Wildes and Carpenter have their own, admittedly selfish, views of the move toward online and home-study hunter education. The classrooms and the gun ranges, Carpenter said, are where old instructors learn new tricks.

“Every class, we learn something,” Wildes said. “Sometimes it’s really simple, something mechanical we never thought of before. Sometimes it’s just a new way of looking at things – a different attitude.” ■

(opposite page, L-R)

Dan Brooks, chief of law enforcement for the New Mexico Department of Game and Fish, was an archery instructor at the 2006 New Mexico Outdoor Expo, which annually showcases the Department’s Hunter Education Program.

Ed Carpenter of Albuquerque has been teaching hunter education for 20 years.

PHOTOS: DAN WILLIAMS

(this page, L-R)

Hunter education students know what to do when they encounter a handgun, no matter what type.

Volunteer Hunter Education Instructor John Yeager of Bosque Farms helped 4-year-old Cole Abernathy take his first shot with a muzzleloader during the 2006 New Mexico Outdoor Expo.

PHOTOS: DAN WILLIAMS



Hunter Education in New Mexico • Fast Facts

Who needs it? By law, any person under age 18 must have successfully completed the New Mexico Hunter Training Course or an approved course from another state before buying or applying for any type of firearm hunting license in New Mexico. Youths under 18 must carry a hunter education certification card while hunting. Colorado and some other states require everyone to have hunter education certification, regardless of age.

Age limits: People of all ages can take the course, although children at least 11 years old are more likely to understand the materials and have a better chance of passing. Children ages 10 and under must be accompanied by a parent or legal guardian at all times during the course.

Cost: Free.

Course options: The standard course is 16 hours, usually conducted from 8 a.m. to 5 p.m. Saturday and Sunday. Persons ages 11 and over can take an accelerated course that includes home study followed by eight hours of hands-on activities, instruction and testing.

Bow hunting education: Bow-hunter education is not required for archery seasons in New Mexico, although some other states require it. However, some bow-hunter education is offered in firearms classes, and the Department of Game and Fish offers special classes sanctioned by the International Bowhunter Education Program. For more information about bow-hunting classes, call (505) 222-4731.

Find a class in your area: Visit the Department Web site, www.wildlife.state.nm.us and click on the Education tab. Or call (505) 222-4731.

Volunteer to teach: The Department welcomes more hunter education instructors. Instructors must complete a current Hunter Education course and an Administration and Orientation Workshop. For more information, call (505) 222-4722.



Hide and seek

Look for rails deep in the cattails

By KEVIN HOLLADAY

If birds could play hide and seek, rails might be the champions. What are rails? They are small birds that live in cattail marshes and wetlands, where they hide and raise their young. Rails are so good at hiding that bird-watchers and hunters are usually the only people who see them in their water worlds. Sometimes, rails may not touch dry ground their whole lives.

The Virginia rail and the sora are two kinds of rails that live in New Mexico. Both birds like to live in places people rarely go. Places like marshes – where the cattails are thick and the mud is deep and gooey. Moving around the marsh is hard for people, but easy for rails. Their bodies are skinny, and they hold their feathers tight against their bodies so they can squeeze through very narrow spaces.

The marshes are the perfect habitat for rails. For wildlife, habitat means home – a place to find food, water and shelter. The marshes also are habitat for bugs, snails, small frogs and fish – the rails’ favorite foods.



Sora (*Porzana carolina*)

Description: Distinct triangular shaped body with a short tail often held upright showing white underneath. No larger than 10 inches long and weighing only a few ounces. Its short yellow bill stands out against an overall slate gray body and black face and bib.

Habitat: A small, secretive marsh-walker, the sora spends most of its time hiding in dense marshes or wet meadows.

Food: A wide variety of seeds, insects, snails and other aquatic invertebrates.

Call: A long, high descending whinny. Also a two-noted “sor-AH” call, with second note higher.

Range: Most common and widely distributed rail in North America but may be declining in some areas due to loss of wetlands. Soras migrate south in winter to Central and South America.



Virginia rail (*Rallus limicola*)

Description: A small chicken-like bird with a short tail and strong red legs, red eyes and a long, slightly curved red bill. Its throat and breast are reddish and its cheeks are gray. Virginia rails have wingspans of 13-15 inches and only weigh a few ounces. Its forehead feathers are adapted to withstand wear from pushing through dense marsh vegetation. It can swim under water, propelling itself with its wings.

Habitat: In New Mexico, it is found during the summer in fairly large cattail marshes.

Food: Probes water and mud with bill searching for insects, other aquatic invertebrates, fish, frogs, and small snakes.

Call: A long sequence of pig-like grunts. Also does a repeated “kid-dik.”

Range: Wetland habitats throughout the northern and western United States and southern Canada. Its wintering range includes Mexico, all of Florida and the Gulf Coast of the United States. Some travel as far as Guatemala.

Where is your habitat?

Soras and Virginia rails can fly, but when they do, it’s usually not far. Rails are shy, and they like to stay hidden in the marsh. Two other birds that live in the marsh – the common moorhen and American coot – belong to the same family as rails. But they act more like ducks – walking around in plain sight and swimming in open water.

In New Mexico, soras and Virginia rails are game birds, meaning they are legal to hunt. But because rails are small and hard to find, few hunters look for them. Ellery Worthen, a bird-watcher and hunter from Albuquerque tries to find soras in September, when water starts to flood the cattails. He hunts at La Joya Waterfowl Area along the Rio Grande. If he’s lucky enough to bag a sora, he cooks it in a hot skillet with salt, pepper and crushed garlic. Soras don’t taste as good as sandhill cranes, he says.

Some bird-watchers find rails by becoming bird-listeners. Because rails live in thick marshes, they often can’t see one another – so they call very loud. Virginia rails grunt like a pig and make a sound like kid-dik.” Soras make a sound like their name: “sor-AH,” with second note higher.

One way to find sora or Virginia rails is to clap your hands loudly together. If they are there, they will often call out in response.

Sunrise or sunset are the best times to find sora or Virginia rails. Try searching La Joya Wildlife Management Area or Bosque del Apache National Wildlife Refuge along the Rio Grande. Rails also live at Las Vegas National Wildlife Refuge, Bitter Lakes National Wildlife Refuge near Roswell and in marshy areas along the San Juan River.

For more information about rails, contact:
 Ellery Worthen, New Mexico Wildlife Federation, (505) 873-3320.
 Bill West, WingsWest Birding Tours, (800) 583-6928.
 Tim Mitchusson, New Mexico Department of Game and Fish, (505) 835-0900.
 Christopher Rustay, Playa Lakes Joint Venture, (505) 243-0737.
 Bosque del Apache National Wildlife Refuge, (505) 835-1828.
 La Joya Wildlife Management Area, (505) 864-9187.

KEVIN HOLLADAY is coordinator of conservation education for the New Mexico Department of Game and Fish. He can be reached at (505) 476-8095 or kevin.holladay@state.nm.us.

