

PHOTO: DAN WILLIAMS

Hunting forecasts

Welcome moisture improves wildlife habitat, hunting prospects across New Mexico.

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Silvery success

Partners band together to save a minnow

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Dying to meet you

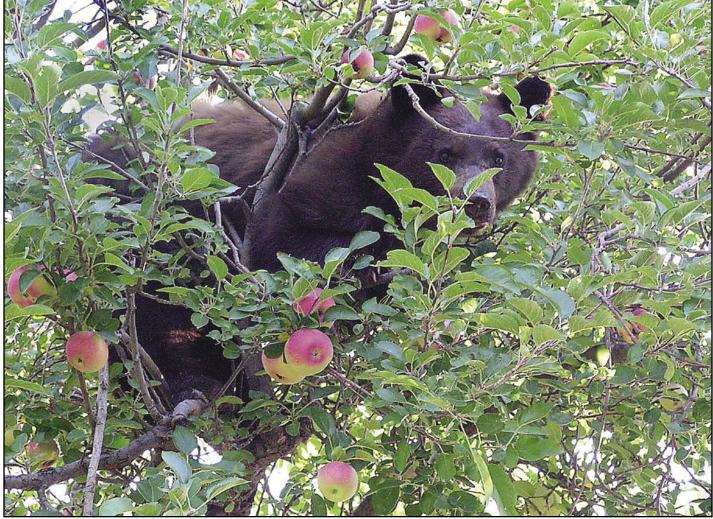


Photo: Clint Hens

People who plant apple trees in bear country can expect company when the fruit ripens in late summer.

Our food is bad news for bears, lions

By Dan Williams

he stories never end in New Mexico and across the western states:

- Bear finds garbage, birdfeeder or camper's pic-a-nic basket. Bear dies.
- Mountain lion on the outskirts of town makes easy meals of house cats, small dogs and pygmy goats. Lion dies.

Through July of this year, at least 22 bears and three cougars were killed after Department of Game and Fish officers determined they were public safety threats. In fiscal year 2006-07, 19 bears and seven cougars met the same fate.

"When it gets to the point that the bears or lions are chronic problems and lose their fear of humans, we really have no choice," said Lief Ahlm, chief of the Department's Northeast Area, which includes the country around Raton and Las Vegas. Eleven bears and two cougars were killed in his area through July. Eight more bears died after being hit by cars.



Photo: Nick Sm

Hungry mountain lions pressured by human development and other lions often find trouble when they start snacking on house cats and other pets.

It's been a busy summer for conservation officers across New Mexico. Despite a good snowpack and wet spring that encouraged growth of natural foods and prey reproduction, numbers of bear and lion complaints have been above average. Rick Winslow, the Department's large carnivore

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Trout in the Classroom a swimming success

By Clint Henson

Raton – Nearly eight months after watching an aquarium full of eggs hatch in their aquariums, students at Columbian Elementary School in Raton celebrated a successful Trout in the Classroom project by stocking about 150 fish in nearby Lake Maloya.

Students, parents, teachers and Department of Game and Fish officers gathered April 28 to conclude the project. With wonderful, warm weather and calm waters, each child took a few fish, tempering them ever so gently to acclimate them to their new home, then watched them swim away.

Danny Cummings, speech therapist at Columbian Elementary, learned about the Trout in the Classroom project about a year ago, and asked if any teachers would be willing to host an aquarium to raise trout eggs. Lisa Sanchez's second-grade class and Eva Chavez's third-grade class volunteered to make room for the 55-gallon aquariums. Columbian Elementary received a grant from Public Service Company of New Mexico to purchase their own aquarium that will stay at the school. The New Mexico Department of Game and Fish supported the project by supplying a second aquarium and trout eggs.

Students were able to track the growth of the fish from eggs to release. They monitored the water temperature, pH, and made sure that all the pumps and filters were working every day. Cummings and officers from the Game and Fish Department gave several presentations to the classes about fisheries management, water quality

Fun for families: 5th Outdoor Expo attracts 2,000 people

Cold temperatures, wind and even a bout of snow were no match for the enthusiasm at this year's New Mexico Outdoor Expo at the Albuquerque Shooting Range Park.

About 2,000 participants, mostly families, turned out to test their skills at shooting, archery, casting, climbing and the always popular catfish pond. Educational displays in the range's large new building drew large crowds, especially when the weather got nasty.

A flurry on Saturday tested participants' mettle -- and the anglers showed who were the most determined. While the archery and muzzleloader instructors ran for cover, children and volunteers at the casting station held their ground, tossing plugs into the chilly wind, sleet

The free event is one of the Department's most successful efforts at introducing families to shooting, fishing and other fun outdoor activities.

"We've been struggling to come up with ways to get our kids more involved in the outdoors, and you've



Fisheries biologist Eric Frey prepares a bag of fingerling trout so they can be stocked in Lake Maloya by students from Columbian Elementary **School in Raton.**

and fish biology. Only about 5 percent of the original 3,000 eggs survived to be released into Lake Maloya. This was an important lesson about how fish lay thousands of eggs only to have a very few grow to adults.

After the fish had been released, several children stayed at the lake to fish. The Department supplied rods and bait and some helpful hints. The program also showed how the Department raises millions of fish each year to provide

fishing opportunities to anglers all over the state. Now, thanks to the children of Raton, a few more fish are available to the public. Several other schools in New Mexico have shown interest in the project, and soon many other children will have this opportunity to learn about fisheries management.

For more information about Trout in the Classroom, please contact Colleen Welch at (505) 476-8119 or colleen. welch@state.nm.us.



Fisheries biologist Shawn Denny watches one of his pupils cast at the clouds during the annual New Mexico Outdoor Expo.

given us a great start today," a father of three said after a full day of activities.

The New Mexico Department of Game and Fish and co-sponsor City of Albuquerque are making preparations for the sixth-annual Outdoor Expo, which promises to be bigger and better than ever.

"This event is a very effective way to get more families involved in outdoor and shooting sports," said Mark Birkhauser, the Department's hunter education coordinator. "It's free, it's fun, and best of all it gets people involved in recreational activities that last a lifetime."

For more information about the Expo or how to get your children involved in hunter education, please contact the Department at (505) 222-4722 or visit www.wildlife.state.nm.us.

Watch for roadblocks during 2007-2008 hunting, fishing seasons

The Department of Game and Fish will conduct roadblocks statewide through March 31, 2008, in an effort to collect harvest data and to apprehend violators of fish and wildlife laws.

Department personnel may be assisted by other law enforcement agencies,

including the U.S. Forest Service, Bureau of Land Management, New Mexico State Police, and local Sheriff's Department officers.

Hunters and anglers may encounter minor delays at the roadblocks. To report a violation, please contact

your local conservation officer, call the toll-free Operation Game Thief hotline at 1-800-432-GAME (4263), or visit the Department website, www. wildlife.state.nm.us. Callers can remain anonymous and earn rewards for information leading to charges being filed against wildlife law violators.

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Commission, Nature Conservancy buy property on Gila River

Sensitive species and precious aquatic habitat along more than a mile of the Gila River will be better protected with the purchase in June of 168 acres through a partnership between the State Game Commission and The Nature Conservancy.

The property in the Gila-Cliff Valley, 25 miles northwest of Silver City in Grant County, supports critical populations of several indigenous fish species, including the federally and state protected spikedace and loach minnow. The property also provides vital habitat for other endemic, rare, and declining species.

The property was acquired through provisions of the Natural Lands Protection Act, which provides for joint acquisition of unique and ecologically significant lands in New Mexico. The \$600,000 purchase used a \$5 million special appropriation for land conservation requested by Governor Bill Richardson during the 2005 Legislature. The money is being used to buy land or acquire easements statewide for habitat conservation and restoration, and to protect open

Downlisting opens angling opportunities for native Gila trout

Limited angling opportunities for Gila trout opened July 1, 2007, for the first time since 1966 in select streams in southwestern New Mexico, following the native trout's downlisting from endangered to threatened on the federal and state lists.

The new regulations approved by the State Game Commission allow the Department of Game and Fish to open select streams that previously have been closed to all fishing. Opportunities and rule changes include:

- Limited angling will be allowed for Gila trout in Black Canyon Creek from July 1 through September 30 as a Special Trout Water. Fishing will be catch-and-release only with artificial flies or lures and a single barbless
- Iron Creek will be open for yearround angling as a Special Trout Water with a two-fish daily limit. Fishing will be with artificial flies or lures and a single barbless hook.
- Regular trout water rules will apply to McKenna Creek and Sacaton Creek, with no tackle or bait restrictions and a bag limit of five fish per day and no more than 10 in possession.
- Everyone who fishes in Black Canyon and Iron Creek must have a Gila Trout Permit along with a valid New Mexico fishing license. Permits are free and are available on the "Buy licenses online" feature of the Department website, www.wildlife.state.nm.us.

Access to Black Canyon can be challenging because of adjacent private property. For more information about access routes or other details, contact Annette Gomez with the Wilderness

agricultural land.

"I am proud of our ability to move wildlife conservation forward in the important Gila River System by using a combination of our conservation statutes and strategic funding for land protection," Governor Richardson said.

"This property is extraordinarily rich biologically," said Terry Sullivan, state director for the Nature Conservancy. The Gila River Valley is among the few undammed rivers in the West, which provides for an amazing diversity of aquatic life."

"This is among the few remaining places in the Southwest where natural river processes function, and it is vitally important to protect it," Game Commission Chairman Alfredo Montoya said.

The property contains more than 50 species and natural communities that are important globally. "These species and vegetation communities are featured conservation targets in the Comprehensive Wildlife Conservation Strategy for New Mexico," said

Department Director Bruce Thompson. This acquisition is a leveraged partnership in which the State of New Mexico provided 90 percent of the cost. The Nature Conservancy paid 10 percent and agreed to provide longterm stewardship of the property through a management agreement with the Game Commission.

The property will be adequately fenced and rested to promote recovery of riparian vegetation as part of the stewardship agreement.

The area will be included in the system of state wildlife areas that are managed for a variety of wildlife conservation purposes, including wildlife-associated recreation.

The State Game Commission has statutory responsibilities for conserving native wildlife, the habitat it depends upon, and providing for human appreciation of those resources. The Nature Conservancy is a leading international, nonprofit organization that preserves plants, animals, and natural communities representing the diversity of life.



Photo: Steve Larese

Aplomado falcon fledglings rest in their nest atop a power pole on the Armendaris Ranch.

Aplomado falcons successfully raise young in first year

And then there were 13.

A pair of 1-year-old aplomado falcons that were among the first 11 introduced into New Mexico successfully hatched and raised two chicks this summer, surprising biologists who did not expect the young birds to reproduce for two years or more.

"This was a very special event that happened under special circumstances on a special ranch," said Tom Waddell manager of Ted Turner's Armendaris Ranch where the first birds were released in August 2006. "It's the first time in history that a pair of aplomado or peregrine falcons bonded in their first year, raised young and fledged them out."

Waddell said the young parents had a lot of help from near-perfect weather conditions that produced plenty of grass and insects during the spring and summer. The newly fledged falcons hatched in early June and had left the nest atop a power pole by July.

"It has been so wet this year, there are so many insects the birds are just stuffed," Waddell said.

The falcons introduced to the ranch last year were bred and hatched in captivity at The Peregrine Fund's World Center for Birds of Prey in Boise, Idaho. The introductions were made possible through a partnership with the Peregrine Fund, the New Mexico Department of Game and Fish and the U.S. Fish and Wildlife Service. More aplomado falcons were introduced this summer on the Armendaris ranch, on state and Bureau of Land Management lands, and on White Sands Missile Range.

Aplomado falcons once were widespread from southern Texas to eastern Arizona, but by the 1950s their range was restricted to a few areas in Mexico. The Peregrine Fund began releasing aplomados in South Texas in 1993, and in 2006 a self-sustaining population was established. Since them, the focus of the release effort has shifted to West Texas and New Mexico.

Trout fishing in Santa Fe



Hundreds of eager anglers turned out for a spring fishing derby on the Santa Fe River, made possible by a generous runoff and 500 trout stocked by the Department of Game and Fish.

1 millionth silvery minnow released

The one millionth captive-raised silvery minnow was released into the Rio Grande in May, marking a milestone for the Middle Rio Grande Endangered Species Act Collaborative Program.

U.S. Sen. Pete Domenici and U.S. Reps. Heather Wilson and Tom Udall helped release the historic fish. Representatives of other program partners, including the New Mexico Department of Game and Fish, U.S. Fish and Wildlife Service, Bureau of Land Management, landowners, environmental groups and other federal, state, city and pueblo governments also released minnows.

The collaborative was created to

endangered species while protecting water interests in the area.

The Fish and Wildlife Service began raising minnows in 2001 at its National Fish Hatchery in Dexter. The City of Albuquerque Biological Park's Rearing and Breeding Facility also is a model for raising the minnow in a more natural setting. Two new refugia are scheduled to be operational in 2008.

The first releases of Rio Grande silvery minnows to augment the wild population began in June 2002 with the release of more than 48,500 minnows raised from eggs. A total of 418,851 minnows were released in 2006. This year, an estimated 120,000 minnows will be released in the Middle Rio

Ranger District, (505) 536-2250. protect and improve the status of listed Grande from Angostura to San Acacia. Department, judge fed-up with littering, other offenses on Pecos River near Carlsbad

CARLSBAD -- Officers from the Department of Game and Fish and other state and local agencies got serious about enforcing littering, alcohol and wildlife laws this summer, concentrating on a party spot on the Pecos River below Brantley Lake.

In June, five men and one woman collectively paid \$3,402 in fines and court costs for littering while floating down the river on inner tubes. Department officers watched as the six floaters tossed several cans and a smashed Styrofoam cooler into the water. Eddy County Magistrate Henry Castaneda didn't approve, and dished out the maximum fines.

In July, seven people were arrested and 57 citations were issued in the Brantley Wildlife Management Area north of

Carlsbad. The effort involved officers with the Department of Game and Fish, State Police, Department of Public Safety Special Investigations Division, and the Eddy County Sheriff's Office.

Three people were arrested on alcoholrelated charges, and 4 people were arrested for outstanding warrants or revoked driver's licenses. Citations issued included 17 for littering, 8

alcohol violations, 4 off-highway vehicle violations, 5 game and fish violations, 22 traffic violations and one for drug paraphernalia.

Anyone with information about game-law violations is encouraged to call Operation Game Thief at 1-800-432-GAME (4263). Callers can remain anonymous and could be eligible for cash rewards.







Photo: Dan Williams

Legal buck

The State Game Commission changed bag limits for most deer and elk hunts for the upcoming seasons. The antler point restriction for deer (previously at least three points on one side) was changed to one fork-antlered deer for most hunts. For more information, please consult the 2007-2008 Big-game Rules and Information Booklet, available at license vendors, Department of Game and Fish offices, and online at www.wildlife.state.nm.us.

Green spring promotes fawn survival

By Ross Morgan

Hunting in northwestern New Mexico should be good this season, thanks to much-needed snow and plentiful spring rainfall.

Because of the welcome moisture, the northwest is beginning to see habitat improvements. Deer and elk should have had plenty of nourishing forage to generate good fawn survival rates and promote good antler growth. Deer and elk hunting success rates can change from day to day, depending on factors such as the weather and hunting pressure, but the 2007-2008 forecast looks promising.

"If we continue to see plenty of rainfall creating a surplus of water holes, hunters should spend less time hunting the water holes and more time on the animals' feeding trends," said Bill Taylor, Department of Game and Fish game manager for the Northwest Area. "For best results, hunters should get to know the trails the deer and elk are utilizing to and from their feeding and bedding areas."

The positive outlook is a far cry from last year, when hunting success was negatively affected by dry conditions statewide. The northwest region received little to no snow or rainfall, which brought high fire danger and prompted fire restrictions. Predominately dry, windy conditions kept the deer and elk at higher elevations for a longer period of time, and hunters had a hard time finding them. This year, normal to above average snowfall amounts along



Elk had plenty of spring forage in northwestern New Mexico.

with good spring rainfall has been good for wildlife -- with perhaps one exception.

Heavy snow in central New Mexico prompted the closure of Antelope Management Unit 43 near Stanley, where animals were searching for food in three feet of snow.

"Large amounts of snowfall can be very hard on the antelope, especially when it stays cold for long periods of time and the snow doesn't melt, like in this case," said Mark Olson, Antelope Manager for the Northwest Area. Antelope in other areas of the northwest fared much better.

The Department is reminding hunters that the State Game Commission changed bag limits for most deer and elk hunts for the upcoming seasons. The antler point restriction for deer (previously at least three points on one side) was changed to one forkantlered deer for most hunts. The bag

limit for most antler point restricted elk hunts was been changed to one mature bull elk.

Another rules change affecting the Northwest Region is that private landowners within Game Management Units 2A, 2B and 2C must obtain specially marked applications from the Department office in Albuquerque.

More specific hunting opportunities can be obtained by calling the Department office in Albuquerque at (505) 222-4700. And remember, it is now mandatory for anyone licensed to hunt elk, take furbearers, and/or permitted to hunt deer, on private or public land, to report their harvest.

Ross Morgan is the Department of Game and Fish public information officer for the Northwest Area. He can be reached in the Albuquerque office at (505) 222-4707 or ross.morgan@state.nm.us.

Look for more trophy elk among amazing Gila herd

By LuAnn Tafoya

It won't be long before temperatures begin to cool, signaling that it's time to start pulling your hunting gear out of the closet and cleaning those rifles. If you're looking for a good spot to go hunting this fall, southwestern New Mexico provides a wide variety of opportunities. Spring rains have helped after some years of drought. Rivers and springs have been flowing, bringing good sources of food, cover and water for wildlife.

The elk population in the Gila is doing well. If you were one of the lucky ones that drew a license this year, opportunities look encouraging. The Greater Gila elk herd is the largest in New Mexico with 13,000 to 20,000 animals -- possibly our most valuable



elk resource. The area is known for the largest trophies in the state.

The Department of Game and Fish is managing the Greater Gila herd for quality hunts, with 40 bulls for every 100 cows in most game management units. Units included in the Greater Gila include 15, 16A, 16B, 16C, 16D, and 16E. Elk populations in the southern portion of the Gila have lower population densities and are managed for optimal hunter opportunity. Approximately 1,000 to 1,800 elk occupy units 21A, 21B, 22, and 23. Unit 24 contains very few elk and efforts have been made to let the herd recover from past over-harvest.

"Overall, hunters will have a slightly higher chance of harvesting an animal this year compared to last year," Silver City District Conservation Officer Jon Armijo says. He also reminds hunters that the bag limit for most antler-point-restricted elk hunts has been changed to one mature bull elk this season. For more information about rules and regulations, be sure to read this year's Big Game Rules and Information Booklet before your hunt.

Deer hunting this year may be difficult again as the area continues to recover from years of drought. With deer populations down, hunters can increase their chances by scouting before their hunt. Bag limits for deer also have changed and a fork-antlered buck is now legal.



Photo: Ross Morgan

The elk population in the Gila National Forest has reached 13,000 to 20,000 and includes some of the largest trophy bulls in New Mexico.

Small-game hunting this year should be good, says Las Cruces District Conservation Officer Richard McDonald.

"The upcoming dove season looks very promising," McDonald says. "There are always plenty of doves in the Rio Grande Valley."

He reminds hunters to take advantage of opportunities for Eurasian collared doves, which are plentiful in southwestern New Mexico. There is no daily bag or possession limit for these doves. Hunters must keep one fully feathered wing attached to every collared dove until the birds are at home.

Quail hunting usually is good following a wet spring, so opportunities look promising this year, especially in areas around Deming and Lordsburg.

Conditions often change with the wesather, so for the latest updates and hunting suggestions, please contact the Department's Southwest Area Office in Las Cruces for updates, (505) 532-2100.

LuAnn Tafoya is the Department public information officer for the Southwest Area. She can be reached at (505) 532-2106 or luann.tafoya@state.nm.us.























NE wildlife prospers with more moisture

By Clint Henson

With a wet but mostly mild winter and continued spring moisture, wildlife populations in northeastern New Mexico generally have been on the rise in 2007. Even with severe snows in December 2006 and early January 2007, winter-killed wildlife was not an issue.

Elk numbers have remained steady in the northeast, with some conservation officers reporting elk expanding into unoccupied regions. Areas such as the Valle Vidal, and the Colin Neblett and Barker Wildlife Management Areas are seeing an increase in trophy-quality bulls. A few 390-plus bull elk were harvested from the Valle Vidal during the 2006 hunting season. Jason Kline, Cimarron District Wildlife Officer, is excited about the prospects great elk hunting this fall. "Considering the quality of elk is already fabulous, I am forecasting some monsters this year," he says.

Some elk have been found sick or dead from eating locoweed. While this is not uncommon, more cases have been found in northeastern New Mexico than usual. Locoweed is attractive to livestock and wildlife because it becomes green and matures faster than other plants.

With concerns of Chronic Wasting Disease spreading from southern New Mexico and Colorado, all suspicious wildlife deaths are investigated. Symptoms of locoweed are similar to Chronic Wasting Disease. Animals become weak and coats become scruffy. They will often be alone and



Photo: Dan Williams

After years of decline, mule deer populations appear to be slowly increasing in northeastern New Mexico.

unresponsive to humans. Contact your local conservation officer if you have questions regarding concerns or testing for wildlife diseases.

Northeast mule deer numbers are also on the rise, slowly but surely, but populations still hinge on current wet weather and improving habitat conditions. Quality bucks are common in most areas, with exceptional bucks being seen occasionally. Better nutritional habitat and good spring hiding cover should allow for another good year for fawns and more growth and distribution of deer area-wide. Public-land hunts for deer should increase for quality and numbers if weather patterns continue. However,

private-land hunts may still yield the best quality bucks. Hunters must draw public-land permits, but they are still able to buy over-the-counter deer licenses with written permission from the landowner.

Antelope surveys have shown another steady year of growth after many years of decline. Some units showed a slight decline, but officers believe that some herds moved during the heavy snows. Several years of decreased hunting pressure have allowed bucks to mature in certain areas. Quality bucks are being seen all over the region.

Bear and lion populations remain



stable, with the best hunting opportunities on private land.

The good moisture and mild winter also has helped small game and turkeys. Pheasant hunting will be good near Clayton and populations are slowly expanding west. Quail seem to be on the increase but are still generally found in localized areas. Dove season looks promising with lots of available water holes. Grouse and squirrel season looks great for the higher elevations as well.

If you have questions about wildlife or hunting regulations, please contact your local conservation officer or the Raton Game and Fish Office at (505) 445-2311. If you see a wildlife violation, please contact Operation Game Thief at 1-800-432-GAME (4263). Reports will remain anonymous and are eligible for rewards if information leads to charges being filed.

Clint Henson is the Department of Game and Fish public information officer for the Northeast Area. He canbe reached at the Department office in Raton, (505) 445-2311 or clint.henson@state.nm.us.

Hunters should find lots of opportunities in southeast

By Mark Madsen

The fall hunting forecast for southeastern New Mexico is looking good, thanks to generous winter and spring precipitation throughout the region. Most areas had a good spring green-up with ample forage and plenty of water and cover for big and small game species.

Deer hunting could be better than the past few years. Fawn survival and recruitment has been good for the last couple of years, and the overall deer population has shown a slight increase. More deer, along with the change of the bag limit from the three-

point antler restriction back to a forkantlered buck should increase hunter harvest for this fall.

Elk hunting prospects in the southeast continue to be good to excellent. Overall range conditions in the Capitan, White, and southern Sacramento mountains are by far the best they've been in years. Elk numbers continue to be good in game management units 34 and 36 and hunters should see some trophy quality bulls this fall in both units.

The pronghorn antelope hunting forecast varies from unit to unit. Some areas have had good fawn recruitment

while others have struggled. The hot, dry summer last year in most areas of the region drastically reduced fawn survival. However, hunters may see a slight increase in antelope populations in some areas from good fawn recruitment two years ago.

"Overall, hunters should see some good quality bucks this fall," Area Game Manager Brian Novosak said. "Good nutritional spring forage should result in good horn development for this fall in most areas."

Southeastern New Mexico has seen a significant increase in the number of barbary sheep hunters. Many hunters who weren't successful in drawing a public land deer permit bought barbary sheep licenses, which remain over-the-counter. Success rates for last February were quite good, with lots of sheep being harvested. Increased hunter pressure and harvest will result in an average hunt forecast for this year.

Javelina populations have increased throughout southeastern New Mexico, and hunters can look forward to increased opportunities with the opening of several new game management units. Hunters fortunate enough to draw a license can now hunt in units 29, 30, 31, 32, 33, and 34. Carlsbad District Supervisor Bryan Nygren reports, "We are seeing javelina in areas where they have not been observed before." Hunting could be challenging because the javelina are

not concentrated in any given area.

The small-game forecast for southeastern New Mexico should be excellent for this fall, especially for doves, quail and pheasants. The good winter and spring moisture and subsequently good habitat conditions have set the stage for excellent hunting conditions. Reports of an early hatch for quail are starting to come in and there are still lots of mourning and white-winged doves in the region. Conditions are excellent for pheasant throughout the Pecos Valley. Waterfowl hunting should be excellent with lots of feed and water being found throughout the valley.

Mark Madsen is the Department of Game and Fish public information officer for the Southeast Area. He can be reached in the Roswell office at (505) 624-6135 or mark.madsen@state.nm.us.



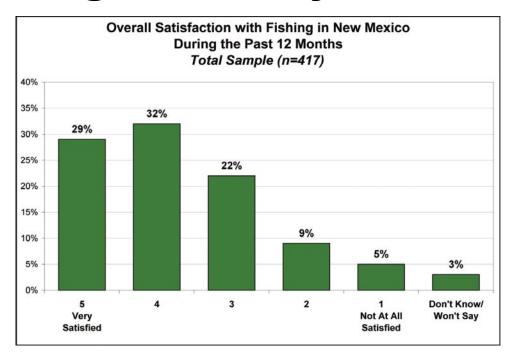


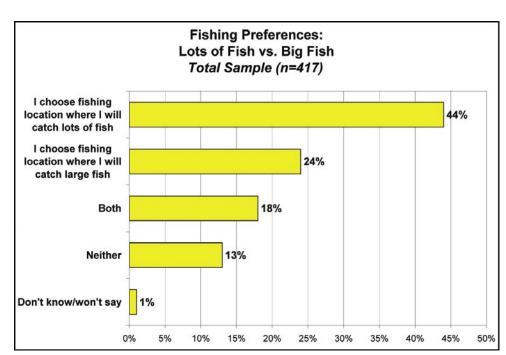
Photo: Dan Williams

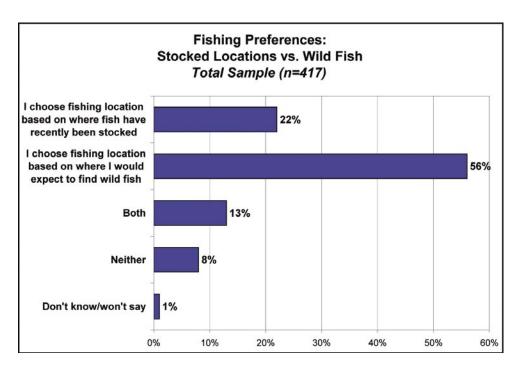
Hunters may see more antelope with well-developed horns this fall, thanks to good winter and spring moisture.

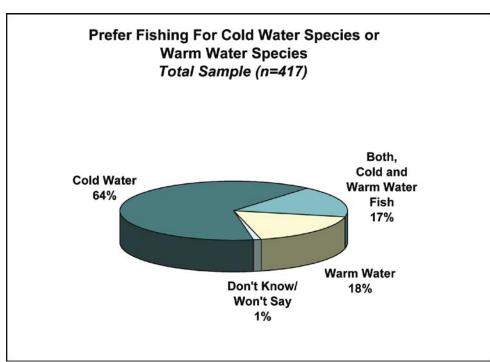


Angler survey indicates shifting attitudes









Charts: Research & Polling Inc.

Satisfied N.M. anglers say they prefer catch-and-release, wild fish over stockers

By Dan Williams

More New Mexico anglers prefer catch-and-release fishing, and would rather go after wild fish than stockers, according to an angler satisfaction survey completed this year by the Department of Game and Fish.

The survey, designed to help the Department better manage the state's recreational fisheries resources, indicated that most anglers were satisfied with their fishing experience in the past year. It also indicated that some attitudes toward fishing may be leaning away from the "take em home and eat 'em" approach, a result that came as a surprise to state fisheries officials.

"The preference for catch-and-release, and wild fish over stockers is contrary to everything I've thought and heard about New Mexico anglers," said Mike Sloane, chief of fisheries for the Department. "It's been a while since we've asked anglers these questions. We need to monitor these trends in case we need to change our management strategies based on public interest."

According to the survey, 55 percent of New Mexico's more than 300,000 anglers prefer to catch and release most of the fish they catch, while 30 percent like to keep most of their fish. The survey also said that 56 percent of the state's anglers choose their fishing location based on opportunities to catch wild fish, as opposed to 22 percent who prefer to fish in waters that recently have been stocked.

"I was impressed with how many people are looking for wild fisheries," said Bill Schudlich, president of the New Mexico Chapter of Trout Unlimited. "We work on habitat restoration for mostly wild fisheries, so this survey tells me what we're doing is important and on track."

The survey by Research & Polling Inc. included telephone interviews of 317 resident anglers and 100 nonresident anglers who purchased fishing licenses in 2006. Interviews were conducted April 4-10, 2007. The margin of error was plus or minus 4.8 percent.

Sixty-one percent of anglers who participated in the survey said they were satisfied with their fishing experience in the past year, a significant increase over the past two years. In 2006, 55 percent of anglers responding to the survey said they were satisfied, up from 47 percent in 2005. The increases did not surprise Sloane. He attributed the trend to improving water levels and more trout production at the state's six fish hatcheries.

"When we have good water years, people generally have a better experience when they go fishing," Sloane said. Everyone likes to go fishing in nice places, and those places are much nicer when there's plenty of water like last year."

Trout production was up at New Mexico's fish hatcheries in 2006, as four of the state's six hatcheries continued to recover from outbreaks of whirling disease and stocked more than 2 million catchable-sized rainbow trout in state waters. Hatchery production improved to 85 to 95 percent from lows of 70 to 80 percent when many runways were closed down for renovation two years ago. Further

renovations are expected to double the number of working runways at Lisboa Springs Hatchery in Pecos and reopen the entire Los Ojos Hatchery within the next two years.

Another somewhat surprising survey indication was that given a choice, anglers prefer catching lots of smaller fish over a few large fish, an indication Schudlich said ties in with the wild fish over stockers trend.

"The fish you catch might not be huge like the fish from the San Juan, but the overall experience of catching wild fish in a beautiful setting makes it special," Schudlich said.

Sloane said the survey will help the Department continue bucking a declining national trend in fishing license sales. While license sales have declined in New Mexico over the past six years, it hasn't been as dramatic the 12 percent drop nationwide.

"We're just not seeing the steady decline as in other areas of the country," Sloane said. "Instead, our fluctuations in license sales appear to follow the state's water levels. When we have good water years, we sell more licenses."

Some other angler survey highlights:

- 25 percent said they caught a lot of fish during the past year; 16 percent said they didn't catch many fish; and 8 percent said they didn't catch any fish.
- 35 percent said they usually choose their fishing location based on scenery; and 31 percent look for a spot close to home.
- 23 percent of anglers said they go fishing three to five times a year; 19 percent said they fish one or two days a year; and 20 percent said they fish more than 20 days a year.
- 88 percent of anglers who responded to the survey were male; 31 percent were age 50-64 and 27 percent were age 16-49; 55 percent were Anglo and 32 percent were Hispanic.

Complete survey results are available on the Department website, www.wildlife.state.nm.us.

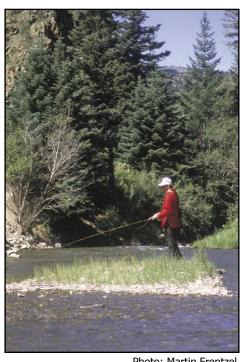


Photo: Martin Frentzel

New Mexico anglers prefer wild trout and great scenery.



Photo: Dan Willia

Six-year-old Brianna Montoya shows off a stringer of rainbow trout she helped catch during the May 19 fishing derby on the Santa Fe River.

Kids & fishing: A parents' guide

There's nothing quite like a child's walleyes when they catch their first fish. It's a magic moment that can lead to a lifetime of fun family recreation. Before you gather up the kids and hang out the "Gone Fishin'" sign, here are a few tips that might make your outing more successful:

- **Best age:** Most anglers agree that 4 or 5 is the best age to start a kid fishing. By then, they have acquired the motor skills necessary to cast and operate a reel.
- **Practice:** Buy your child his or her own equipment and practice with a casting plug in the back yard. Combination rod-and-reel outfits are inexpensive and work great. Buy extra line. There will be tangles.
- **Be the guide:** On the first trip or two, leave your gear in the truck. That will give you plenty of time to bait hooks, cast, untangle line and unhook fish.
- No fish, no fun: Do some research and find a spot where the chances of catching fish are good. Check out fishing and stocking reports in newspapers and on the Department of Game and Fish website, www. wildlife.state.nm.us. Lakes usually are best at first because they have easy access and fewer snags.
- Hook fish, not flesh: Use only one hook per line. Pinch off the barbs for additional safety.
- **Live bait:** Minnows and worms are tough to beat. Use them to increase your success.
- Don't push it: Keep your outing to an hour or two at most the first time. If the fish aren't biting, find another activity to keep it fun. Visit the marina, look for bugs. If the fish are biting, try to leave before they stop. Your young angler will be eager to return.

Thumbs-up for youth hunts

Special opportunities await young hunters statewide

By Ross Morgan

I can still vaguely remember waiting to take a hunter's safety course so I could hunt alongside my dad instead of being a tag-along. However, I will not forget the very first dove I ever shot. I shot it out of the air with a bolt-action .410 shotgun that had been passed down to me by my dad. I sure wish I could have seen the look on my face that morning.

Let's face it, although we enjoy getting out and having the opportunity to hunt ourselves, there is probably nothing more exciting or rewarding than seeing the look on the face of a young boy or girl after they harvested their first animal. Whether it is a rabbit or a deer, the look in their eyes is worth a thousand words.

This year, in an effort to create more youth hunting opportunities throughout the state, the Department with the approval of the State Game Commission created eight more deer hunts, two more antelope hunts and three additional turkey youth hunting opportunities. In addition, the Department continues to offer the popular youth pheasant hunts in the northwest and southeast areas of the state.

The new hunts reflect an ongoing Department effort to retain and attract more youth to hunting as a positive family recreational experience. This year, the Department is offering 25 special youth-only hunts for deer, 16 for elk, 6 for antelope, three for spring turkey and one hunt each for bighorn sheep, ibex, javelina and oryx. There also are numerous opportunities for youth and their parents or mentors to participate in youth-only and youth-adult small-game hunts for waterfowl and pheasants.

New, longer deer hunts

Young hunters will have eight more opportunities to hunt deer this season, and to make things even easier, hunting dates were extended for some of the hunts to work around school schedules. These hunts allow youths the opportunity to hunt during three different time frames that fall during the school breaks around Thanksgiving and Christmas.

The newly designed extended hunt dates for these new youth hunts -- Nov. 22-25, Dec. 1-2, and Dec. 8-9 -- maximize the ability for youths and their parents to get out and hunt, said Barry Hale, Deer Program Manager for the Department and Game and Fish.

"Although most hunts are designed to include at least one weekend during the hunt period, these hunts are designed to give the kids an opportunity to hunt three weekends," Hale said. "This makes it easier for the kids and their parents who have to work during the week and may only be able to take the kids hunting on the weekends."

Mentor-youth antelope hunts

In addition to the new youth-only hunts, the Department, with the input of the State Game Commission and the Wildlife Federation, created a mentor-youth hunt for pronghorn antelope. The mentor-youth hunt is a draw hunt consisting of one adult age 18 or older and up to three youths younger than age 18 on the opening day of the hunt. This hunt is available for Antelope Management Unit 29 in the



Photo: Robert Livingston

A successful young hunter and Conservation Officer Donald Jaramillo gave the youth pheasant hunt at Casa Colorada Wildlife Management Area two thumbs up.

southeastern portion of the state. To be eligible for a youth hunting license, each applicant for any youth only hunt must be younger than age 18 on the beginning date of the hunt. Youth hunters must provide proof of successfully passing a hunter education course prior to making application or purchasing a license for a firearm hunt. Youth hunters must carry this proof while hunting in the field with a firearm.

Hunter Education courses are offered year-round throughout New Mexico. There is no minimum age requirement to sign up. However, an adult must accompany children younger than 11 years old. Students are required to read a manual and complete a worksheet before class, attend all class sessions and pass both a written test and a firearm proficiency test before becoming certified and receiving a card.

Don't wait until the last minute to register for a course or you may miss the deadline to apply for a hunt. For class dates and times, contact the Department office closest to you or call the Hunter Education Program in Albuquerque at (505) 222-4731, or visit: http://www.wildlife.state.nm.us/education/hunter_ed/index.htm.

For more information and details about youth hunting opportunities, please visit the Department Web site, www.wildlife.state. nm.us, or check out the 2007-2008 Big Game & Trapper Rules and Information Booklet available at license vendors or Department of Game and Fish offices in Santa Fe, Albuquerque, Las Cruces, Raton and Roswell. Look for youth opportunities for small-game and waterfowl in the 2007-2008 Small Game & Waterfowl Rules & Information Booklet, scheduled for publication in late August.

Ross Morgan is the Department of Game and Fish public information officer for the Northwest Area. He can be reached in Albuquerque at (505) 222-4707 or ross.morgan@state.nm.us.



Jack of hares

New Mexico is home to 3 species of jack rabbits

By M.H. "Dutch" Salmon

have always been fascinated by the remarkable biological diversity of New Mexico. For example, the ptarmigan, a game bird with a "far north" aura, can be found in scattered populations within the higher peaks of north central New Mexico. At the other extreme, the "Mexican" (common) black hawk summers and breeds in limited numbers north of Mexico, along portions of New Mexico's Gila and San Francisco Rivers.

In the Gila National Forest you may see a beaver and a coatimundi on the same day; an elk and a javelina on the same hillside. And I once caught a brown trout and a flathead catfish out of the same pool of the Gila River. Granted, neither is native to the Gila, but I was astounded that two such different fish could be self-sustaining in the same river.

But perhaps our most notable display of biological diversity can be found in our various hares, where we alone among the 50 states sport three species of jack rabbits, plus the snowshoe hare. Let's have a look at where and how they live, and see how they

In New Mexico, jack rabbits are largely taken for granted. Like ravens, we see them around a lot but don't really notice them much. Hardly anyone remarks, "Hey, I saw a jack rabbit today!" When jack rabbits do get noticed, the reference is usually negative. They get into our gardens and

eat the crops. They girdle our fruit trees. They compete with livestock out on the range (It is said that seven jack rabbits will eat as much forage as a sheep). They lead our bird dogs off on merry and futile chases when the dogs are supposed to be hunting quail. In turn, jacks are hard to hit, almost impossible to catch, and are usually considered too tough to eat. And they breed like, well, rabbits.

Well, anything can be troublesome if they get too numerous, including people. Still, I mark the jack rabbit down as a neat critter, uniquely talented and interesting, even if they are common as dog tracks.

First of all, despite the name, jack rabbits aren't rabbits at all; they're hares. The gestation period of a rabbit is about 30 days. Hares hold their young 7 to 10 days longer. And while rabbit young are born bald, blind, and helpless, a justborn hare is already in fur, eyes open, and the little leveret can hop around. Rabbits and hares are both largely nocturnal, but a rabbit, such as the cottontail, likes cover; they live in burrows or brush piles and when pursued hard they look for cover or a hole to provide an escape. Hares spend their entire lives on top of the ground, hooding up in a "form" -- a mere depression in the grass -- when they're not out feeding or moving about. Flushed by a coyote, fox, or greyhound, a hare will attempt to outrun rather than hide from the predator.

By any or all of the above determinants, the jack



Black-tailed jack rabbits' enormous ears allow blood to flow close to the surface of their skin, acting as a cooling mechanism and helping them survive the desert heat.

rabbit is a hare. The most sensible explanation I've heard for the name "jack rabbit" is this one: The striking long ears of this hare caused the descriptive moniker, "jack-ass rabbit," later shortened to jack rabbit.

There are four species of jack rabbit in North America, three of which reside in New Mexico. The most common is the black-tailed jack rabbit (Lepus californicus). The black stripe down the top of the tail is descriptive. The coat is mostly grey flecked with black (excellent camouflage), the ears are 6 to 7 inches long and black-tipped,

and the species will average 5 to 8 pounds, at least twice the size of most cottontail rabbits. The black-tailed jack has a very broad range in New Mexico, from open grasslands through the mesquite/creosote brush country and pinon/ juniper woodlands -- everywhere but the most heavily forested regions.

any tough meat.

Fun to hunt,

good to eat

Jack rabbits are great sport

shotgun, as well as running

with the .22 WMR cartridge

revolver. But we need to get

beyond the notion that all

these hares are good for is

sighting in your gun. Jacks

are a good game animal,

regardless of their "nongame" status, and hunters

should not be killing them

Here's a jack rabbit recipe

that works for me.

just to leave them in the field.

Jack rabbit posole

The best meat is on the hind

legs (the dark red meat along

the back is great catfish bait)

and the hind legs alone have

more meat than a whole

Cut meat into small pieces

and soak overnight in the

fridge in a bowl of water

To cook, sauté in olive oil

with onions. Add a couple of cans of hominy. Add red chili powder or fresh green chili,

as you like it. Season to taste

with salt, pepper, garlic and

oregano. Simmer at least two

hours till meat is tender. And

a crock pot does wonders for

with a teaspoon of salt.

cottontail.

with rifle, handgun, and

dogs. I like to hunt them

myself, either rifle or

prairies and extending south to the open sage plains of Rio Arriba and Taos counties in New Mexico, is the white-tailed jack rabbit (*Lepus* townsendi). This hare has shorter ears than the

On the northern plains, from the Canadian

White-tailed jack rabbits are capable of reaching speeds of more than 40 mph, and keeping the pace long enough to outdistance even the fastest greyhounds.

Photo: M.H. "Dutch" Salmon











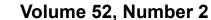












black-tailed (a hare's ears dissipate heat, so New Mexico jacks have longer ears than North Dakota jacks), and a white rather than a black tail. In winter, their pelage will turn white or pale gray, like a snowshoe hare's. White-tails on average are bigger than black-tails, weighing roughly 6 to 10 pounds.

In extreme southern Hidalgo County is a rare hare (at least in New Mexico): the white-sided jack rabbit (Lepus callotis). It looks much like a black-tailed jack, except for the flash of white fur on its sides and hips. While common farther south in Mexico, the white-sided jack is scarce north of the border. Its range in the United States is limited to the Animas Valley, and it is fully protected as a state threatened species.

The largest and most spectacular North American jack rabbit resides nearby in southcentral Arizona and farther south in Sonora, Mexico. Like our Hidalgo County hare, the antelope jack rabbit (Lepus alleni) flashes a white coat on its sides and hips when the critter is disturbed or in flight. But this hare is bigger -head and body some two feet long, ears up to 9 inches long without any black on the tips, and a weight of 8 to 12 pounds. Further, they like the Sonoran brush country and avoid open terrain, while New Mexico's white-sided hare -- quite the opposite -- limits itself to open Chihuahuan grasslands.

I used to hunt snowshoe hares (Lepus americanus) with Basset hounds in the conifer forests of northern Minnesota. Incredibly, the same hare can be found in the high forested terrain of New Mexico's Sangre de Cristo and San Juan Mountains. And you can hunt these 3- to 5pound. hares in these mountains, with beagles and Bassets, just like I did in Minnesota.

As Aesop knew when he matched a tortoise against a hare, you can't talk about hares without talking about speed. The hare the greyhound chases at the race track is artificial, but the one out in the field is real. By knowing something of greyhound speed, one can infer the speed of a jack rabbit.

At a track in Tucson, the greyhound "Whisk Action" covered 335 yards in 17 seconds flat, an average speed of 40.5 mph. That's from a standing start and around a curve. Good greyhounds commonly break 30 seconds for 550 yards (nearly 40 mph) and have been chronographed at an attained speed of 50 mph coming down the first straightaway. Take such hounds to the open field, flush a jack rabbit, and what happens?

Usually, the hound is able to overtake the hare one or more times, forcing the jack to change direction in order to escape, indicating the superior speed of the hound. More often than not, in the ensuing high-speed chase, the jack is able to elude the hounds with a myriad of high-speed maneuvers until the hounds begin to tighten up (usually inside of a mile). At that point the hare is once more able to straighten out



Hares of New Mexico

Black-tailed jack rabbit (Lepus californicus)

Habitat: Common throughout New Mexico. Able to live in some of the hottest, driest regions, surviving on poor-quality foods and getting water it needs from food.

Behavior: Mostly nocturnal. Tremendous leapers, able to jump more than 20 feet horizontally. They live in some of the hottest and driest regions of the continent, can survive on poor-quality foods, and get most or all of the water they need from their food. They cope with extreme heat by resting in the shade during the day. Enormous ears are a cooling mechanism where blood flows close to the

Diet: Creosote-bush and green vegetation when it can find some.

Average size: 18-25 inches long, 2.8-7.3 pounds.



White-tailed jack rabbit (Lepus townsendi)

Habitat: A broad range of elevations, from 131 to 14,000 feet, moving to higher elevations when competing with smaller black-tailed jack rabbits.

Behavior: Very solitary, interacting only briefly during the breeding season. A female may produce one to four litters of four to five young each

Diet: Grasses, green forbs, and shrubs during the winter.

Average size: Males, 23 inches, 7.5 pounds. Females, 24 inches, 7.9 pounds.



White-sided jack rabbit (Lepus callotis)

Habitat: Prefers level ground to hills, and does not require shrubs for cover, but uses clumps or dense stands of grass. In New Mexico, limited to the extreme southern border with Mexico, more common in the Animas Valley.

Behavior: Form male-female pairs, and the male will defend the pair from other males. Breeding season runs from mid-April to mid-August, with one to four offspring in a litter. Predators include eagles, hawks, owls, foxes and coyotes.

Diet: Grass.

Average size: Males, 21 inches, 4 pounds. Females, 22 inches, 6.4 pounds.



Snowshoe hare (Lepus americanus)

Habitat: Northern swamps, hardwood and mixed evergreen forests from coast to coast. Limited to far northern New Mexico.

Behavior: Mostly nocturnal, remaining hidden in vegetation until sundown. Two to five litters a year, with one to eight offspring. Color changes from brown in summer to white in winter for camouflage. Large feet are padded with dense spiraling hairs that act as springs.

Diet: Grasses and shrubs.

Average size: 18 inches; 3 pounds.



Graphics: Smithsonian Institute

them behind.

At times, however, one encounters some remarkable jack rabbits. I have seen both blacktailed and white-tailed jacks start up not 10 yards in front of greyhounds of proven speed -fresh, healthy hounds on good running ground -- and literally run away from them. These hares beat greyhounds at a straightaway sprint!

I have been running jack rabbits with greyhounds, salukis, and other sighthounds since 1969. It is clear to me that the best jack rabbits are capable of an attained speed of at least 40 mph, and of maintaining that speed for a longer distance than a coursing hound. That a hare is capable of outrunning a specially bred dog like the greyhound, a quadruped 6 to 10 times its size, is surely one of the most remarkable feats in the realm of natural history.

In New Mexico, the jack rabbit and snowshoe

into a sprint, stringing the pack out and leaving | hare are considered "non-game" animals. This does not mean you can't hunt them. Quite the opposite. With the exception of the whitesided jack rabbit, which is protected, you can hunt hares however and whenever -- no closed season, no bag limit, and New Mexico residents don't even need a hunting license. The jack rabbit is so prolific and so adaptable, it is virtually immune to hunting pressure.

> The jack rabbit is a remarkable critter, and in New Mexico we are blessed with an unusual variety of swift hares. Their presence is a tribute to our biological diversity. They are "game" and as well serve as the principal prey base for covotes, bobcats, and several of our large, important raptors. I hope the next time you see one you'll say, "Hey, I saw a jack rabbit today!"

> M.H. "Dutch" Salmon of Silver City is an accomplished outdoor writer, book author and editor, and a member of the State Game Commission.



More hunters prefer online applications

By Dan Williams

The New Mexico Department of Game and Fish received almost 163,000 applications for 59,000 hunting opportunities in the drawing for 2007-2008 deer, elk, antelope, bighorn sheep, ibex and javelina hunts. Almost 70 percent of those applications were submitted through the Department website, an all-time high since the online process was first offered three years ago.

Application numbers have grown steadily the past three years, from 145,126 in 2005-2006 to almost 163,000 for this year's drawing for 2007-2008 hunts.

The number of online applicants also increased in the past three years, from 54 percent to almost 70 percent.

Hunters who use the online application process pay a \$6 fee with a credit card at the time of application. They are charged for the license only if they are successful in the drawing. Hunters who use paper applications must pay the entire license fee with their application, and will receive a refund check about four months later if they are not successful.

"Most hunters consider the online process more convenient, and they don't have to wait for a refund if they are unsuccessful," Department Assistant Director Patrick Block said. "It also gives hunters the option of changing their applications before the drawings, and it saves the state time and money because we don't have to issue refund checks."

Not having to put money up front also encourages more hunters to apply for species and opportunities they might previously have passed up. A good example of that is the desert bighorn sheep hunt, which has perhaps the highest odds for a hunt drawing in the country. New Mexico offers only one public drawing license for desert bighorn sheep each year.



Photo: Don MacCarter

The two largest desert bighorn rams harvested in North America were taken in New Mexico, making the state's single public hunting permit one of the most coveted in the world.

This year, the drawing for the desert bighorn license attracted 3,315 applicants, up from 2,862 for the 2006-2007 hunt. Licenses cost \$159 for New Mexico residents, \$3,166 for nonresidents. Unlike deer, elk, and antelope licenses, the drawing for bighorn licenses is not subject to the quota system that requires 78 percent of the licenses go to state residents.

"You can see why applying online for a bighorn license is more appealing to nonresidents when they can do it for \$6 instead of writing a check for more than three thousand dollars," said Eric Rominger, the Department's bighorn sheep biologist.

This year, desert bighorn applicants' \$6 fees totaled \$19,890. The winner of the drawing, a Californian, paid \$3,166 for his license, bringing the total generated from a single bighorn license to \$23,056.

Here are some other highlights from the 2007-2008 drawing for antelope, deer, elk, bighorn

sheep, ibex and javelina:

Deer: There were 62,652 applications for 34,814 available hunts, and 32,285 permits were issued. The extra hunts, mostly less-popular bowonly hunts, will be offered in a special online drawing.

Elk: There were 20,167 licenses available and 20,110 issued. There were 66,706 applicants. The remaining licenses will be offered in a special online sale.

Antelope: All 1,658 available licenses were issued. There were 17,768 applicants.

Bighorn sheep: All 18 available licenses were issued. There were 8,451 applicants.

Ibex: All 175 available licenses were issued. There were 4,231 licenses issued.

Javelina: All 2,005 available licenses were issued. There were 3,170 applicants.

New licenses will give hunters more options, raise money for wildlife

By Mark Gruber

The 2007 New Mexico Legislature passed and Governor Bill Richardson signed several bills that positively affect hunters and anglers in New Mexico. The legislation created new license types, added reduced-fee licenses, and created two new license packages. Hunters and anglers can look for these changes to begin during the 2008-2009 license year.

Grand Slams

Some of New Mexico's best fund-raising efforts for wildlife conservation have been through public auctions and raffles of special hunting opportunities for bighorn sheep and elk. The 2007 legislation will allow the Department to expand those opportunities with the creation of two Grand Slam permits that will be auctioned each year to the highest bidder. The Grand Slam packages will allow hunters to take a combination of one elk, one oryx, one ibex, one deer and one antelope. Funds collected will be used to enhance, conserve and protect big-game habitat statewide. Details about the auctions will be announced soon.

Governor's Authorizations

Governor Bill Richardson signed a bill that will raise more money for wildlife conservation through special auctions for trophy hunting and fishing. The legislation allows the governor to make available up to 12 big-game special

authorizations and 12 game-bird or trophy fish authorizations each year. The authorizations will be auctioned at special events called by the governor. For more information about these special authorizations, please contact the Department's Wildlife Management Division at (505) 476-8038.

New licenses, reduced fees

Three new license types will give hunters and anglers more choices and avoid conflicts with the drawing for deer hunting permits.

Resident Fishing and Small-Game **Combination License:** This new license is similar to the General Hunting and Fishing License, without the deer license attached. It was created to allow hunters and anglers to purchase a combination license early in the season without having to gamble on being successful in the drawing for deer permits. The new license entitles a resident to hunt squirrels and game birds (except turkeys) and to fish during the open seasons for each species. The annual Resident Small Game and Fishing Combination License will sell for \$33.00. A small game license and an annual fishing license purchased separately would cost \$45. A resident deer license costs \$39.

The General Hunting and Fishing License is still available for \$62. However, hunters are encouraged not to purchase one until they know

whether they were drawn for a public land deer permit. Hunters who have General Hunting and Fishing Licenses and are unsuccessful in the deer permit drawing can use the license only to purchase permits for hunting on private land -- if they have written permission from the landowner. No refunds will be granted.

Resident Junior/Senior Fishing and Small **Game Combination License:** This license promotes youth hunting for small game and waterfowl and fishing by offering these opportunities at a discounted price. The same license is available to older residents at a discount. It can be purchased by a resident younger than 18 years or older than 65 years, and entitles them to fish for game fish or hunt for squirrel and game birds (except turkeys) during the open seasons for each species. The annual Resident Junior/Senior Fishing and Small Game Combination License fee is \$16.00, a significant savings from the \$25-\$28 cost of fishing and small game licenses purchased separately.

Resident Junior/Senior Deer License: A third new license type will allow youths and seniors to purchase a discounted deer license similar to the Junior/Senior Elk License. This license may be purchased by residents younger than age 18 or older than 65. It will allow residents who are successful in the permit drawing to hunt for deer during the open season. The annual Resident Junior/Senior Deer License fee is \$24.00.

Program opens private lands to public

Landowners earn cash on public access leases for wildlife recreation

By Kerry Guiseppe

A new program coordinated by the New Mexico Department of Game and Fish is opening new opportunities for hunters and anglers by leasing private lands and unlocking gates.

The Open Gate: Hunting and Fishing Access Program is designed to open access to more of the approximately 45 percent of New Mexico that is privately owned. By leasing private property access, the Department hopes to expand hunting, fishing and other wildliferelated recreational opportunities on private lands and on public lands that formerly were "land-locked" because they are surrounded by private land.

"Access programs like Open Gate are becoming increasingly popular in the West as a win-win solution to increase public hunting opportunities," said Jeremy Vesbach, Director of the New Mexico Wildlife Federation. "Montana pioneered the concept 20 years ago and has opened 9 million acres of private lands for public recreation. With Governor Richardson's continued support, I'm confident we'll see Open Gate expand our hunting opportunities in New Mexico as well."

Access opportunities for the 2006-2007 season included more than 26,000 acres for dove, quail, waterfowl, and deer hunting. Landowners have enrolled more than 27,611 acres in the program for the 2007-2008 season, and the Department hopes to add more opportunities such as turkey and oryx hunting, fishing, and wildlife watching.

Habitat validation pays off

Funding for Open Gate is from the State's \$4 Habitat Management and Access Validation, which is required for buyers of hunting and fishing licenses. Fees paid to landowners begin at \$1 per acre, \$500 per water source (tank, pond, river access), or can be negotiated with approval by the Department Director. The lease agreements protect landowners from liability issues, and may help alleviate chronic trespass problems.

OPEN

Landowners can participate in the Open Gate Program in three ways:

- Leasing their property for either an entire year's worth of activities or for a specific season such as waterfowl, turkey or fishing. Properties are evaluated by a district conservation officer for suitability of inclusion in the program.
- Granting access to landlocked public land through their property. This type of access usually will be negotiated as a long-term easement. The Department will appraise the property and negotiate a fair price for the easement.
- Providing access when there is a unique potential for wildlife viewing on their property that would enable a Gaining Access into Nature (GAIN) opportunity to be organized by the Department. This could be a once-ayear opportunity or could encompass numerous viewing options such as elk bugling and bird watching.

"I've had a very favorable experience with the program," said Elliott McMaster, a southeastern New Mexico landowner who signed up for the program in 2006, offering hunting opportunities for waterfowl and quail. "I didn't find any

and \$500 per water source annually for granting access leases to their property for hunting, fishing and other wildlife-associated recreation, and for access to landlocked public lands.

Private landowners who particpate in the Open Gate Program are paid \$1 an acre

Photo: Dan Williams



litter or damage to my property from hunter use. I signed up to make money by utilizing all of the resources on my property and I hope the Game and Fish Department has gotten their money's worth."

As Open Gate gains popularity, public hunters, anglers and wildlife watchers will be called upon to hold up their end of the deal by following the rules and respecting landowners' property. This will be critical to the program's future. Enrollment by landowners is voluntary and experiences will directly affect public access in subsequent years. Everyone who uses these properties is urged to obey all state and federal laws, and to be considerate and respectful of landowners, their neighbors and other recreationists. One bullet hole in a water tank or one cut fence may be all it takes for a landowner to bail out of the program the following year.

Information and applications

Maps to enrolled properties will be posted on the Department website, www.wildlife.state. nm.us, also will be available at Department offices in Santa Fe, Raton, Albuquerque, Roswell and Las Cruces. Maps will include directions to an access point and other pertinent information, including dates and seasons of access and whether there is any road access or if the property is walk-in only. Maps should be available several weeks prior to the start of the season and will be updated as more properties enroll.

The deadline for landowner applications to participate in the Open Gate Program is one month before the start of the season. For instance, if you would like to lease your property for quail season, your application should be submitted by Oct. 15.

To learn more about the Open Gate Program, information and forms are available at the Santa Fe office, all area offices and on the Department website, www.wildlife.state.nm.us. Information also may be obtained from Open Gate Coordinator Kerry Guiseppe, (505) 476-8043 or Manager of Private Land Programs Cal Baca, (505) 476-8044.



More access to private lands through the Open Gate Program will increase hunting opportunities for quail and other small-game species throughout New Mexico. As the program grows, the Department of Game and Fish hopes to expand the program to include more big-game hunting, fishing and wildlife watching activities.

High-fat forecasts

Watch the bear grease for latest on weather

By Dan Williams

While it doesn't take a weatherman to know which way the wind blows, we all can use some help when it comes to predicting what's blowing in this winter, or tomorrow for that matter. So when we're planning a fishing trip or making reservations for a skiing vacation, most of us are content listening to highly educated meteorologists who dazzle us with satellite images, Doppler radar and weather "models." Some of us, however, prefer a more natural approach. Instead of tuning in to AccuDoppler, we consult our Farmer's Almanac, fuzzy caterpillars, cow hides or bear grease.

Bear grease?

Using rendered bear fat to predict the weather has been practiced for hundreds of years, according to a dedicated few who keep the tradition alive. Longtime bear grease readers say the technique was passed down by the Apaches, who observed the fat through deer intestines that were carefully scraped to translucence. The theory is that each pattern created by the grease sediment represents some kind of weather or earth-shaking event. Sometimes the patterns show what's happening now; sometimes they indicate events yet to come.

The late Gordon Wimsatt of Mayhill put bear



-- following the test of the first atomic bomb. He said he was paid a visit by military officials after word got out about his discovery. Apparently, they wanted to know his source of information.

Today, Wimsatt's bear-grease legacy is carried on by hundreds of grease-reading disciples across the country. Many are his relatives, who inherited one or more of his jars, some of them dating back 50 years or more.

"The old ones still work great," says Ron Carpenter, Wimsatt's son-in-law. He and Gordon Wimsatt's daughter, Sheila, keep watch on more than 100 jars, old and new. One of their hopes is that more people will remember Gordon Wimsatt and acquire a jar of weather-predicting animal fat. If you are interested in learning more about the tradition, visit his website, www. gordonwimsatt.com.

He became a favorite guest speaker at area schools, including the school at the Mescalero Apache Reservation. Until his death in 1995 at age 80, "The Bear Grease Kid" predicted long- and short-term weather events, from simple cold fronts and

> thunderstorms to tornadoes, hurricanes and droughts. Occasionally one of his jars displayed unusual patterns that he eventually associated with earthquakes, and yes, even atomic blasts. One of Wimsatt's favorite stories was the time back in the 1940s when one of his bear grease

> jars showed an inversion -- or mushroom cloud

grease on the map when he embraced the

technique he learned from George Hightower, a

New Mexico Game Warden. Wimsatt's uncanny

networks, where he even won a forecasting duel

with the Good Morning America weatherman.

bear-grease weather predictions soon spread

far and wide -- all the way to the television

Bear grease patterns show current, future wind, rain, even earthquakes

For more than 50 years, Cloudcroft, N.M., resident G. Gordon Wimsatt used rendered bear fat to predict the weather and other earth-shaking occurrences with remarkable accuracy. Although he had no idea why the bear grease reacts the way it does, his dilligent attention to the old Apache technique

enabled him to make weather forecasts that baffled scientists and earned him national recognition.

After years of observing his many jars of grease and comparing their patterns with the weather, he created this chart to help others "read" the grease.



Heavy in bottom: no change for several hours; clear.



Slight buildup: Some cloud cover coming.



Build up and peak: Clouds and moisture close at hand.

Bear grease

Ingredients: One piece of clean, well-trimmed animal fat. Bear, chicken or turkey fat work best. Avoid cow, deer, pork and elk fat.

- 1. Cook fat in a skillet over low heat until it turns to a clear liquid. Don't let the fat get too
- **2.** Immediately strain the liquid into a hot, clean, dry clear glass jar. Any size will work. Baby food jars work great.
- 3. Cap the jar and set it in a south or east facing window sill. Try not to move the jar, but if you must, return it to its original position.
- 4. Observe patterns and color changes in the jars, making note of weather conditions at the time. Keeping a journal will help you learn to predict the weather by "reading" the grease.
- 5. Don't give up if you don't notice changes at first. Some grease works right away; others take as long as two months to show changes. Occasionally a jar of grease will go dormant for a period of time, and then become active again.
- 6. Not all fat works. If you don't notice changes in 60 days, try another batch.

Graphics: Dan Williams



Slight depression, large particles: light local winds.



Slight depresion, small particles: heavy local winds.



Moisture close at hand from direction of point.



Large suspended particles: earthquake pattern.



Mushroom pattern happens only after atomic blast.



Padded pattern: **Indicates future** storm.



Hurricane buildup pattern showing direction of travel.



Several tornadoes to hit in a very short time.



Tornado pattern showing direction of travel



Cone: Happens just before a volcanic eruption.



Irregular buildup: beginning of earthquake pattern.









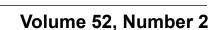












Dying to meet you

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biologist, said good reproduction during the past two years pushed more bears into areas where they got into trouble.

"All of a sudden you have all these young bears moving around, getting pushed out by their mothers, trying to find their place in the world," Winslow said. "Most of our problem bears are young bears, 100 to 150 pounds, who are out looking for food and wind up finding dumpsters, birdfeeders, dirty campgrounds. Some of them are attracted to towns, especially if mom used to bring them in to McDonald's for breakfast."

Finding their place

Young lions also are more likely to get into conflicts with humans than older, wiser cats. Once their mother sends them out on their own, they must establish their own territory, and that's getting increasingly difficult as humans encroach on lion habitat. Often, what little habitat is available is already spoken for by a very territorial adult lion, and a male cougar's territory averages 120 square miles.

Young, inexperienced lions can be dangerous if they're hungry enough. John Montoya, a U.S. Forest Service employee, discovered that in August 2005 when five lions approached him on Patos Mountain in southeastern New Mexico. He yelled and waved his shovel and was able to back down the mountain to his truck, followed by the lions all the way. The same year, a young female lion killed a family dog, and then chased the owner into his house near Las Vegas. The next day, conservation officers used the calls of a fawn bleat and an injured rabbit to lure the lion within shooting range.

"Lions can be very unpredictable," Winslow said. "If you live around them, you don't want to create an attractive environment for their prey species. Definitely don't feed the deer, and if you must have pets, keep them indoors, especially at night.'

Attacks are rare

Attacks on humans by cougars or bears are very rare, despite a fair number of close encounters and a few nips and scratches. Only two people have been killed by a lion or a bear in recent memory. Still, the possibility is there; that's what makes bears and lions so dangerous, and so interesting.

"Bear stories are always interesting," said Mark Oswald, editor of the Albuquerque Journal North edition. The newspaper published more than 30 stories about encounters between humans and bears or lions in the past two years. On a slow news day, all newspapers or television stations need is a bear or a lion to spice up the routine mix of crime, car wrecks, government and politics. Sometimes, all it takes is a sighting to make the news. When a woman in Farmington reported seeing a mountain lion on her hike outside town in obvious lion country, her story made the front page of the local newspaper -- twice.

With bear and lion populations growing and human developments expanding into bear and lion country, some say it's only a matter of time before New Mexico experiences the type of attacks that have become almost



New Mexico's mountain lion population is 2,000 to 3,000 and growing, according to recent estimates. People are seeing and encountering more of the elusive cats as human development continues to expand into cougar country.

annual occurrences in California.

"It's really quite simple -- either people start learning to live with bears and lions, or we're going to have to start removing more bears and lions," Winslow said.

New Mexico's two fatalities involving bears and lions were as hard to explain as they were tragic:

• In August 2001, 93-year-old Adelia Maestas Trujillo was mauled to death by a 275-pound black bear in her rural home near Mora. The attack puzzled investigators, who said Trujillo had not been cooking and did nothing obvious to attract the bear. No one could recall another case of a bear attacking someone inside their house in New Mexico.



Once a black bear discovers an accessible dumpster, it will be back -- again and again.

• In January 1974, 8-year-old Kenneth Clark Nolan of Arroyo Seco was killed by an emaciated 47-pound female cougar. The boy and his 7year-old half brother were playing about a half-mile from their home when they were attacked by the lion. The 7-year-old ran for help, but by the time the father arrived, the lion had killed Nolan. The father, a state policeman, shot the lion three times with his pistol, but it ran off. A neighbor tracked it down and killed it with a rifle.

Keeping populations in check

The Department estimates there are 5,000 to 6,000 bears and 2,000 to 3,000 cougars in New Mexico. Populations are stable or increasing for both species, which are managed under a zone system that regulates numbers of animals harvested each year by hunters, for depredation issues or lion control to protect bighorn sheep. The Department issued 4,913 over-the-counter bear licenses in the 2006-2007 season and those hunters harvested 356 bears. The same season, 1,570 lion hunters harvested 204 lions.

The Department uses hunting as a tool to keep bear and lion populations in check, but there's little control over human populations that continue to expand into bear and lion country. As more and more housing developments and roads are built in the mountains and foothills, conflicts with wildlife are inevitable. Some examples:

• July 2007: Campers in Sugarite Canyon State Park near Raton and Grapevine Campground in southern New Mexico were bitten through their tents by bears. Both campers were treated for rabies. The Sugarite bear was killed and tested negative for rabies. The Grapevine bear disappeared into the forest. Officers believe both bears had learned to

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Got fish?

A fisherman puts some distance between him and a black bear looking for dead fish or a handout at Suree Pond in the Valle Vidal. Bears are common around the pond and nearby campground because they have learned that campers and anglers are good food sources. When the bears become a nuisance or a public safety concern, they must be either trapped and relocated, or killed.



Photo: Dan Williams

Dying to meet you

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associate campers and campgrounds with food.

- June 2007: Officers killed a 150-pound bear in Pinos Altos after it had killed 26 chickens, injured a goat and chased other livestock. The bear had no fear of people and often was seen looking in windows of local houses.
- May 2007: Officers tranquilized and relocated a young black bear that wandered into Rio Rancho and entered a medical clinic. The bear did not threaten anyone or damage

anything. It was released in the Manzano Mountains.

- June 2006: A mature mountain lion in the Sedillo Hill area east of Albuquerque was killed after the lion visited a couple's home three nights in a row and killed their four pet pygmy goats.
- September 2006: A Santa Fe Sheriff's deputy shot and killed a young male mountain lion in the back yard of a house south of town after the lion killed and ate a house cat. The same lion was believed to have killed several house cats in and around Santa Fe over a period of a few weeks.

Drought: the worst of times

Problems with bears and lions always increase during years of drought, especially if the drought year follows one or two years of good bear and lion reproduction. That happened in New Mexico from 2001 through 2003. Snowpacks and precipitation were poor those years, resulting in slim pickings in the high country for all wildlife. Desperate for food, the animals traveled down into the valleys -- often the only source of water and nourishment. There, many also found people, dumpsters ... and death.

"We killed about 1,000 bears both of those years during the hunting seasons and for depredation problems," Winslow said. The dry conditions and scarce food supplies forced the bears to concentrate on what few food sources remained, and that made them easy prey for hunters. Other bears found their way into towns, and more trouble. Hunters harvested nearly 600 bears in the 2001-2002 season and 745 bears in 2002-2003, nearly twice the 11-year average. The number of bears killed because of depredation concerns also skyrocketed to nearly 200 during the drought years, compared with only three bears killed the year before the drought, and 19 when the rains returned in 2003-2004.

"It was nuts," Conservation Officer Chris Chadwick said of the 2001-03 drought in the Northwest Area, which includes Albuquerque. "We were getting three or four calls a night. Everybody was exhausted."

Sometimes officers are able to trap and relocate bears or lions, and sometimes the animals and the people who habituated them leave officers no choice but to permanently remove the problem. Bears and lions that are handled, trapped or relocated receive visible ear tags so officers can recognize them if they turn up again. If the offenses become chronic, the bear or lion usually is put down.

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Bears that get into trouble usually are trapped and relocated in suitable habitat far from where they were caught. The Department of Game and Fish tags these bears so officers can recognize them if they turn up again.

























Living and playing with bears and lions

Creating dangerous nuisance wild animals by intentionally or unintentionally feeding them is a crime punishable by fines up to \$500. The real losers in those scenarios, however, are the animals, especially bears, which often have to be killed. Here are some reasonable measures homeowners can take to save a bear or lion's life by preventing it from associating humans with food:

Bears at home

- Garbage: Store your garbage in airtight containers inside a garage or a sturdy shed, or in an approved bear-resistant receptacle. Clean trash cans with ammonia to reduce odors that can attract bears. Put the garbage out the morning of a scheduled pickup, not the night before.
- Pet food: Feed your pets indoors. Don't leave pet food outside. Store it in a sturdy building or the garage. Make sure your garage door is closed at night.
- Barbecues: Keep barbecues clean and free of grease. Store them in the garage or a sturdy shed.
- Birdfeeders: Hang birdfeeders out of reach of bears, not on your porch or from the house rafters. Bring hummingbird feeders inside every night.
- Fruit trees: Plant fruit trees away from your house, and pick fruit as it ripens. Spoiled fruit that falls to the ground should be removed because the odor is a powerful bear attractant.
- Compost piles: Keep compost piles away from your house. Don't put meat, fish, other pungent scraps or fragrant fruits such as melons on your compost pile. Add lime to reduce odors and accelerate decomposition.
- Talk to neighbors: Bear problems are community problems. Make sure your neighbors know about bear behavior and how to avoid encoun-

Bears in camp

There's nothing a black bear likes quite as much as a pic-a-nic basket, fresh garbage or a cooler full of wieners and soda pop. Here are some ways to prevent dangerous encounters in camp for yourself and other campers:

- Garbage in, garbage out: Keep your camp clean and store food and garbage in bear-proof containers if possible. If not, suspend food, coolers and garbage from a tree at least 10 feet off the ground and 4 feet out from the tree trunk. Do not bury or burn your trash.
- Stow your cooler, pots and pans: Keep your cooler and cooking utensils in a secure place, preferably in a bear-proof container. Vehicles or hard-sided camp trailers usually are secure, but



Lions and bears can be extremely dangerous if they are cornered or feel threatened. This lion's posture indicates it is very displeased with the current situation. Best strategy: Stand tall, make yourself look as big as possible an, and slowly back away.

Close encounters: What should you do?

What would you do if you suddenly came face-to-face with a black bear or a mountain lion in camp, on the trail, or in your back yard? In most cases, your responses to close encounters with both animals should be the same:

- Don't run! If you come across a bear or a lion, stay calm and slowly back away while continuing to face the animal and avoiding direct eye contact. Pick up small children so they don't panic and run, which can trigger the animals' instinct to chase.
- Travel in groups: There is strength in numbers, and most bears and lions will respect that and leave the area.
- Make yourself big: Hold out your arms and spread your jacket so the bear or lion doesn't consider you its prey. Don't kneel or bend

over, which could trigger an attack.

- Back away: If the animal has not seen you, slowly back away while making noise so it knows you are there. If it still approaches, stand tall, yell, rattle pots and pans or whistle. If you are on a trail, step off on the downhill side and give the animal room to pass.
- Don't mess with mama: Never, ever, get between a mother and her cubs or kittens.
- Never offer food: Offering food to a bear is inviting it to stick around. When it's done with your friendly offering, it may consider having you for dessert.
- If you are attacked: Fight back aggressively, using anything you can reach as a weapon. Do not play dead.

bears have been known to break in anyway.

- No food in the tent: Keep your tent and sleeping bag free of all food smells and toiletry items -- even toothpaste. Change your clothes and store the ones you wore while cooking outside the tent with your food.
- Don't cook where you sleep: Your cooking area should be a good distance -- some say at least 100 yards -- from where you sleep, if pos-

Lion country

Mountain lions can be unpredictable, especially when they are young, hungry and looking to

establish their own territory. Here are some tips to protect yourself, your family and pets:

- Watch the kids: Closely supervise children and make sure they are home before dusk and not outside before dawn.
- **No hiding places:** Trim or remove vegetation around the house, and close off open spaces beneath porches and decks so lions won't have places to hide.
- **Lighting:** Install outdoor lighting so you can see a lion if one is present.
- No prey: Don't feed wildlife, especially deer, which are lions' favorite prey.

Dying to meet you

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"The problem isn't the bears; it's the people," Winslow said. "We're bringing our food into areas where it hasn't been before, and making it available to the bears. They are always hungry, they are opportunistic, they learn fast and they have good memories. Bears know what day is trash day, and what time Fifi is let out at night. They learn safe routes to their food sources, sometimes right through towns, where they know they won't be bothered."

Winslow has two classifications for problem bears: "food-conditioned" and "humanconditioned."

A food-conditioned bear is one that learns to associate humans with a food source, such as bird feeders, apple trees, campsites, trash dumpsters and grease bins. They run away when approached and usually are trapped and taken back to the mountains when they become a problem. A human-conditioned bear is another animal altogether. It is also food-conditioned but has changed its behavior and has learned not to fear humans.

"Human-conditioned bears become active in the daytime, which is not normal for bears," Winslow said. "When they are approached, they don't run away, and at that point they become dangerous and might start considering humans as a food source. When they start behaving like that, it's usually a death sentence."



Young bears instinctively climb when they feel threatened, which can cause serious problems when they find their way into urban areas.











Silvery success

Minnow finds plenty of friends along Rio Grande

By Colleen Welch

The river runs slow and low throughout the Middle Rio Grande. The Rio Grande is not the river it was when the silvery minnow thrived throughout most of the river's reach, north to south. During the late 1500's when the river was also known as Rio del Norte, the silvery minnow was abundant and widespread ranging from Espanola, N.M., to the Gulf of Mexico. Historically, the minnow also flourished in the Pecos River from Santa Rosa to where it meets the Rio Grande in southwest Texas and in the lower reaches of the Chama River. Now it is limited to about 5 percent of its original habitat -- all within the middle Rio Grande, from Cochiti Dam to Elephant Butte Reservoir.

The Rio Grande silvery minnow is the only survivor from a group of four native minnows that once thrived in New Mexico's great river system. The Rio Grande was "home sweet home" to these particular minnows, not found elsewhere in the West. The other minnows were the Rio Grande shiner, phantom shiner and Rio Grande bluntnose shiner. The Rio Grande bluntnose shiner and phantom shiner are now extinct, but the Rio Grande shiner still survives in the Pecos River.

Today, the silvery minnow has many friends working to save it from extinction. Environmental groups, government agencies and children are helping the minnow



Children released bags of silvery minnows into the Rio Grande during an event in June celebrating the 1 millionth silvery minnow released into its native waters.

> multiply and find the water it needs to survive. There are plans to improve habitat and water quality to help the minnow and other endangered species. Minnows also are being hatched and raised in a \$1 million refugium at the City of Albuquerque Biological Park. When the minnows get big enough, they are released into the Rio Grande. In June, the 1 millionth minnow was set free to swim in the river.

A minnow's song

A class of fourth-grade students from Catherine Gallegos Elementary School sang this song for the silvery minnow at the dedication of a new silvery minnow refugium in Los Lunas. Music teacher Monica White wrote the lyrics, with music to the song, Baby Beluga, by Raffi and Debi Pike.

Silvery minnow in the Rio Grande, Swimming, swimming despite the sand. Heaven above, and water below, And a little silver minnow on the go.

Silvery minnow, silvery minnow, swim so fast along. We'll keep you safe from harm, we like to see you.

Way down yonder where the turtles play, Where you swim and splash all day, The water's cool and sun is hot, See the turtles sunning out in their spots.

Silvery minnow, silvery minnow, swim so fast along. We'll keep you safe from harm, we like to see you.

When it's dark, you're home and fed, Curl up snug in your water bed. Moon is shining and the stars are out, Good night, little minnow, goodnight.

Silvery minnow, silvery minnow, with tomorrow's sun,

Another day's begun, you'll soon be waking.

Silvery minnow in the Rio Grande, Swimming, swimming despite the sand. Heaven above, and water below, And a little silver minnow on the go. You're just a little silver minnow on the go.

Meet the minnow

"I am a small, silvery animal with fins and scales. I have small eyes. I rarely get longer than 3.5 inches (9 centimeters). I hatched from a floating egg. I eat algae and tiny plant pieces I find floating in the water and on the gooey river bottom. Sometimes I eat old insect skins. I usually travel in large groups called "schools." I prefer slow-moving waters where the river meanders and braids. I release my eggs when the river flow increases during the early spring

-- Bosque Education Guide

Many years ago, when the river was wild ...

I laid my eggs during the peak spring flows, and my young developed in quiet backwater areas after flooding. I prefer shallow, slow water with its silty, sandy bottom. I am a strong fish, but I usually live only one year, so my annual spawn is very important to the survival of my species. The river was strong and carried my eggs and young far downstream. I journeyed

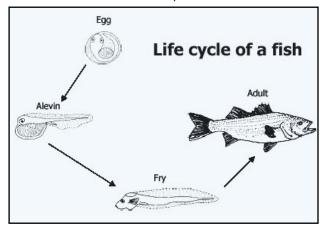


Photo courtesy U.S. Fish and Wildlife Service

upstream, sharing the river with 16 other native fish species.

Today, the river has been tamed ...

The Rio Grande no longer meanders where I try to survive between Cochiti and Elephant Butte lakes. Five major dams have been built within my habitat range and I can no longer swim upstream. Most of the water is used by farmers and cities. Sometimes the river bottom lies naked and dry, cracked by the hot sun. When I can find water, I share it with strange new fish that live behind the dams and find their way into the river. The new fish eat my food, and sometimes eat me! Today, I am one of only nine remaining native fish in the Rio Grande, but people are trying to help me.



To learn more about people helping silvery minnows, please visit the website, www.fws.gov/mrgesacp/.



















