

Photo: Marty Frentzel

The spin on fly-fishing

You don't need lots of fancy gear to enjoy catching fish on artificial flies. Sometimes, spinning outfits work just fine.

Please see Page 7.

IN THIS ISSUE:

6. Huey Waterfowl Area

More water, crops will bring birds, hunters.

8. Plague of hitchhikers

Your waders, boats, pets may carry big trouble.

departments

2. game & fish news

- Mexican bighorns arrive
- Amazing rattler art
- Lucky draw No. 51
- Be bear aware, fire wise

4. regional outlook

- Fine wilderness fishing
- Spring is for walleye
- Foil unwanted critters
- Lake Van memories

10. state parks

- Living Desert Zoo & Gardens 40th anniversary
- Springtime in the parks

16. kidtracks

Trout in the Classroom

Students help raise trout from eggs to fingerlings.

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



Published by
The New Mexico Department
of Game and Fish



Search keyword: NMDGF

New Mexico wildlife

www.wildlife.state.nm.us

VOL. 56, NO. 1 — Spring 2011

Surviving the wild



Photo: Mark Watson

Elk calves are extremely vulnerable to black bears and other predators during their first few days of life.

Elk calves in danger from moment of birth

By Dan Williams

The elk calf is on the menu the moment it hits the ground. If it is lucky, a bear, coyote or cougar won't find it hiding in the tall meadow grass. But if it's born in the Valle Vidal in northern New Mexico, its chances of survival are slim.

Known for its prolific herds of Rocky Mountain elk, the Valle Vidal is experiencing a worrisome decline. The suspected cause, and current subject of an ongoing calf mortality study, is predation. Early indications suggest that bears, coyotes and cougars are taking an unusually high toll compared to other areas of the state.

"If the decline continues, it may have a long-term impact on the Valle Vidal herd," said Stewart Liley, elk biologist for the Department of Game and Fish. "My job is to try to find the cause of the decline, and if there is a way to improve it – not only for hunters, but also for wildlife watchers."

In 2009, Liley began conducting the Department's first-ever large-scale elk calf mortality study. Most of his efforts have been in the Valle Vidal unit of the Carson National Forest and its privately owned neighbor, Vermejo Park Ranch. In two years, he captured and placed ear tags with radio transmitters on 82 elk



Photo: Dan Williams

calves. Today, only about 24 of those calves are still alive.

Transmitters signal trouble

Liley and other researchers determine the causes of calf deaths by quickly responding to mortality signals from the transmitters. The transmitters are active only from 6 a.m. to 6 p.m. and emit a special signal if the calf hasn't moved -- even a twitch of its ear -- for two hours. When a mortality alarm sounds, Liley tries to be on the scene as quickly as possible.

... continued on Page 13



Desert bighorns arrive from Mexico

LORDSBURG -- Desert bighorn sheep destined for a captive breeding program at the Red Rock Wildlife Area north of here arrived Feb. 26 after more than two months of quarantine in Mexico. The 10 young rams will provide new genes to a herd that was started at Red Rock in the 1970s.

The rams were provided to the state of New Mexico in exchange for pronghorn antelope that were moved to three wildlife management areas in Mexico during the last two winters.

The state of New Mexico started cooperative wildlife management programs with Mexican wildlife authorities in the 1970s. In 1972, desert bighorn sheep propagation at Red Rock began with five ewes from Mexico and one ram from the San Andres National Wildlife Refuge on White Sands Missile Range.

Offspring from the Red Rock herd have helped rebuild desert bighorn herds across New Mexico's desert mountain ranges. The species once was considered endangered in the state, but after decades of releases, selective predator control and the support of numerous wildlife conservation groups, the animals are candidates for delisting under the Wildlife Conservation Act.

"These rams from Mexico are 1 1/2 to 3 1/2 years old," said Darrel Weybright, big-game project leader for the New Mexico Department of Game and Fish. "The idea is that once these rams get a little older, we can



Photo: Eric Rominger

Desert bighorn rams from Mexico will remain in quarantine until about mid-May, when they will join the resident captive sheep at the Red Rock Wildlife Area.

take out all the existing Red Rock rams and allow the Mexican rams to do the breeding."

Weybright said the Red Rock sheep need more genetic diversity. With the bulk of the sheep at Red Rock being from the San Andres, over the next decade offspring from the captive herd will be used to augment desert bighorn populations across New Mexico.

For more information about bighorn sheep in New Mexico, please visit www.wildlife.state.nm.us.



18-foot rattler may be largest in the world

Charlie Painter thinks his latest creation may be the world's largest rattlesnake, or at least the world's largest rattlesnake tail.

"It's 18 feet high, from the platform to the tip of the rattles," Painter said of the sculpture completed recently at the Chiracahua Desert Museum in Rodeo. Museum owners Bob and Sheri Ashley commissioned Painter to create the sculpture.

Painter is the Department of Game and Fish herpetologist, and an accomplished author, artist and welder.

"It's absolutely morphologically correct," Painter said of the sculpture.

The huge rattlesnake tail is modeled after a detailed photograph of a female western diamondback rattlesnake, a native species that happens to be very prolific in the bootheel area of southwestern New Mexico. Internationally known wildlife artist Tell Hicks designed the work, which took Painter, Mike Hill and Lori King 40 days to make and seven days to erect.

The sculpture includes 10 different



Photo: Lori King

Herpetologist Charlie Painter says his sculpture of a western diamondback rattlesnake tail is morphologically correct.

kinds of scales – 335 in all – and a rattle with four-part segments.

The museum is at 4 Rattlesnake Canyon Road in Rodeo, a small town nestled between the Chiracahua and Peloncillo mountains.

OHV riders reminded to be safe and legal this spring, summer

New Mexico's off-highway motor vehicle (OHV) riding season is in full swing, and the Department of Game and Fish wants to remind riders that safety is the primary goal of the state's laws for riding on public lands.

OHV riders under the age of 18 must:

- Wear a helmet and eye protection.
- Have a safety training permit, now available to students who pass one of the OHV training courses on the Department website, www.wildlife.state.nm.us.
- Have adult supervision while riding if they do not have a driver's license.
- Register their OHV with the New Mexico Motor Vehicle Division or have a nonresident permit.

Riders of any age must:

- Register their OHV with the New Mexico Motor Vehicle Division or have a nonresident permit.
- Have a U.S. Forest Service-approved spark arrester and an engine that produces fewer than 96 decibels.
- Never harass or pursue wildlife or livestock.
- Never ride on private property without permission.

If you are unfamiliar with New Mexico's OHV laws, please visit www.b4uride.com or call the New Mexico Off-highway Vehicle Program at (505) 476-8140.



NEW MEXICO DEPARTMENT OF GAME AND FISH

Tod Stevenson
Director

R. J. Kirkpatrick
Assistant Director for Resources

Patrick Block
Assistant Director for Support Services

Mike Sloane
Fisheries Management

Jim Lane
Wildlife Management

Matt Wunder
Conservation Services

Dan Brooks
Law Enforcement

Martin Frentzel
Public Information and Outreach

Alexa Sandoval
Administrative Services

Sonya Quintana
Human Resources

Robert McGee
Information Systems

AREA SUPERVISORS

Vacant / Las Cruces

Lief Ahlm / Raton

Leon Redman / Roswell

Brian Gleadle / Albuquerque

STATE GAME COMMISSION

Jim McClintic
Albuquerque

Tom Arvas
Albuquerque

Bill Montoya
Alto

Jerry Maracchini
Rio Rancho

Scott Bidegain
Tucumcari

Thomas "Dick" Salopek
Las Cruces

Robert Hoffman
Las Cruces

Volume 56, Number 1

"New Mexico Wildlife" is published by the Public Information and Outreach Division, N.M. Department of Game and Fish.

Contact "New Mexico Wildlife" for permission to reprint content.

Printed in the United States under contract with the State of New Mexico.

Dan J. Williams
Editor

Lance Cherry
Chief of Publications

Letters may be sent to:
New Mexico Wildlife

P.O. Box 25112

Santa Fe, NM 87504-5112

Telephone (505) 476-8004
dan.williams@state.nm.us



Please visit our Web site,
www.wildlife.state.nm.us





Photo: Martin Bernal

Dennis Chavez applied for 51 years before drawing a license to hunt Rock Mountain bighorn sheep in New Mexico. He harvested this nice ram Jan. 8, 2011.

51st time’s a charm for longtime hunter

By Dan Williams

After 50 years of applying for a New Mexico Rocky Mountain bighorn sheep license, Dennis Chavez was about to call it quits.

“I figured that if it didn’t happen in 50 years, I just wasn’t going to draw,” Chavez said. “Then I decided, what the heck, one more time.” He wasn’t holding his breath. Then one day in early June, he got a call from his friend and hunting partner Martin Bernal, who had just checked the draw results.

“He said, ‘Hey, Dave, we’re going sheep hunting!’”

Seven months later, Chavez, Bernal and Chavez’s son, Chris, were on horseback scoping out a nice bighorn ram in the rocky hills above the San Francisco River near Glenwood. It was the first morning of the hunt, and at 75, Chavez was feeling those jitters that don’t go away, even after a lifetime of big-game hunting.

“I told Martin that this was probably my last hunt,” he said. “I just wanted a nice ram; I wasn’t looking for a big trophy.”

Bernal had scouted the same area the day before finally spotting a large lone ram just as daylight was running out. He figured the ram would bed down in the same area, so he decided to bring Chavez up in the morning. The terrain would be easy on Chavez and the horses, and the spot was only about 15 minutes from camp. It appeared to be a perfect setup.

“The day we went out was beautiful – warm and no wind,” Bernal said. “We got there at about 6 a.m. and waited until it got light. I was watching a ledge for the Ram and he just popped up in my binoculars. I watched him for a couple minutes to see what he was going to do ... then I went to get David.”

Be fire wise, bear aware this spring

Weather forecasters are predicting a drier than normal spring and early summer in New Mexico, and the Department of Game and Fish is urging everyone who spends time outdoors to be extremely careful with fires.

Anglers, campers and hikers who use state wildlife areas are urged to check restrictions before they travel. Wildlife areas observe the same fire restrictions in place by the New Mexico Forestry Division, or in adjoining national forests, Bureau of Land Management and State Trust lands. Fireworks are banned on all 105 wildlife areas that the Department either owns or leases around the state.

Warmer weather also will bring out bears, and campers are urged to avoid unpleasant

The ram hadn’t moved much when Chavez and Bernal got to the vantage point Bernal had picked out for the shot. They range-finder put the ram at 339 yards, a comfortable distance for Chavez and his .270 Weatherby magnum. He took a rest on a backpack and squeezed off a shot.

“I missed him; I think there might have been some brush in the way,” Chavez said. “But he ran back up the hill and turned broadside, and this time I nailed him.”

The big ram fell and began sliding down a steep shale slope and would have ended up 500 or 600 feet below if it hadn’t hung up on some shrubs.

“I felt if I even touched him wrong he would have continued to slide,” Bernal said. “So I got a rope and tied his horns to the shrubs. We skinned and deboned him right there. By 11, we were back at camp.”

Chavez’s ram was scored at 174.0 by Boone & Crocket standards, far short of the state record, but eighth-largest ram taken in the San Francisco River area since hunting began there in the 1970s. He said his son, Chris, a taxidermist, plans to do a full-body mount so he can display the ram alongside his extensive collection of big-game trophies.

“I guess over the years I’ve taken just about everything,” Chavez said. “All have a special meaning to me.” His favorite: an ibex with horns measuring 54 inches that he took with a muzzleloader in 1988.

But Chavez said his days of hard hunting may be over.

“Time has caught up with me,” he said. “My legs are gone – I’ve carried too many elk on my back over the years. But, you know, I just may try for antelope.”

encounters by properly disposing of trash and using “bear-aware” camping practices while in the outdoors. That includes keeping food and garbage securely stored, never storing food in tents, never cooking near where you sleep, and changing clothing that could hold odors before sleeping.

For more information about fire restrictions statewide, please visit <http://nmfireinfo.wordpress.com>; the Public Lands Information Center website, www.publiclands.org/firenews/NM.php; or the New Mexico Forestry Division website, www.emnrd.state.nm.us/FD.

Information about bears can be found on the Department website, www.wildlife.state.nm.us.

Get involved

Many organizations in New Mexico are dedicated to wildlife conservation, habitat improvement and wildlife-related recreation. Whether you are interested in birding, wildlife watching, hunting, fishing or trapping, chances are there is an outfit you’ll deem worth supporting. Here are some of them:

Sportsmen for Fish & Wildlife: A conservation organization organized to promote the protection and enhancement of wildlife habitat, the quality of wildlife management programs and America’s family heritage of hunting and fishing. (505) 486-4921.

Audubon New Mexico: Devoted to the protection, preservation and enjoyment of the environment, with a particular emphasis on birds. The organization has chapters statewide, with headquarters at the Randall Davey Audubon Center in Santa Fe. (505) 983-4609, <http://nm.audubon.org>.

Rocky Mountain Elk Foundation: A large national organization dedicated to ensuring the future of elk, other wildlife and their habitat. The organization actively supports efforts to protect and enhance elk country, conservation education and to restore elk herds. New Mexico information: (505) 892-1250, www.rmef.org.

New Mexico Muskies, Inc.: A group of anglers interested in fishing for tiger muskies in Bluewater and Quemado lakes formed this organization in 2008 as a chapter of Muskies, Inc. Information: Matt Pelletier, (505) 264-2999, www.newmexicomuskiesinc.org.

Friends of the Bosque del Apache National Wildlife Refuge: An organization of about 1,000 members supporting the Bosque del Apache National Wildlife Refuge and promoting appreciation and conservation of wildlife and habitat through environmental education and natural history experiences. In addition to other events, the group helps sponsor the annual Festival of the Cranes. (575) 878-2320, www.friendsofthebosque.org.

Southwest Environmental Center: Works to reverse the accelerating loss of species worldwide by protecting and restoring native wildlife and their habitats in the Southwestern borderlands, through grassroots advocacy, public education and on-the-ground restoration projects. (575) 522-5552, www.wildmesquite.org.

Southwest Consolidated Sportsmen: An organization representing at least 15 sporting and conservation groups of diverse interests. The group’s three primary objectives are to “disseminate wildlife and habitat information, participate in habitat maintenance projects, and review and comment on proposals involving wildlife habitat.” (575) 526-5056.

Trout Unlimited, New Mexico: Dedicated to the restoration, protection and conservation of all coldwater fisheries, their tributaries and watersheds, and the fish that inhabit them. (505) 470-4878, www.newmexicotu.org.

New Mexico Wild Turkey Federation: Supports scientific wildlife management on public, private and corporate lands as well as wild turkey hunting as a traditional North American sport. (505) 869-3837, www.nwtf.org.

New Mexico Trout: Dedicated to the preservation and enhancement of trout fishing in New Mexico’s waters through protection and restoration of riparian habitats and through educating the public about trout fishing and the ecological and social value of trout habitats. newmexicotrout@gmail.com, www.newmexicotrout.org.

Safari Club International: Promotes wildlife conservation worldwide while protecting the hunting heritage and supporting numerous education and humanitarian projects. Southern New Mexico Chapter: LTC R.A. “Pancho” Maples, pancho1@plateautel.net. Northern New Mexico Chapter: Brian Payne, b_payne10@msn.com.

New Mexico Chapter, Wild Sheep Foundation: Formerly the Foundation for North American Wild Sheep, the organization’s goal is “putting more sheep on the mountain.” Members work with the Department of Game and Fish to increase populations of desert and Rocky Mountain bighorn sheep in New Mexico. Lanny Rominger, (505) 821-5064.

Ducks Unlimited, New Mexico: More than 1,500 members support the organization’s mission to restore and manage wetlands and habitats for North American waterfowl. Cindy Wolfe, cjwolfe@gilanet.com, (575) 854-3365.

New Mexico Wildlife Federation: Founded by Aldo Leopold in 1914, the organization is a strong lobbyist in the New Mexico Legislature, “dedicated to protecting New Mexico’s wildlife, habitat and outdoor way of life.” (505) 299-5404, www.nmwildlife.org.

Southeast New Mexico Wildlife, Inc.: A conservation organization (formerly Quail Unlimited) dedicated to preserving and enhancing wildlife habitat, especially quail habitat, in southeastern New Mexico. (575) 393-2895.





‘A raccoon’s in my chimney!’

By Clint Henson

“New Mexico Department of Game and Fish, this is Clint, how can I help you?”

And so it begins – an everyday phone call leading me to another wildlife conflict, or maybe a better word is puzzle. Usually the call is for a deer, dead or injured, by the side of the road – an accident difficult to prevent. But some other wildlife problems can be fixed before they ever happen.

June 1, 2010: “Hello, I have a raccoon in my chimney.” October 4, 2010: “Hello, I have a squirrel in my chimney.”

Different homes in Raton with the same problem. When I get to the address, I climb up on the roof, shine a flashlight down the chimney and see little eyes peering up at me. My usual solution is to drop a rope or a tree branch down the chimney and then go get some lunch. When I come back, the critter is gone thanks to a little climbing support. Then I go to the door and say that the problem is solved, but it will happen again unless the homeowner covers the chimney with a screen. Problem solved.

To keep critters out of your house, start by taking a quick walk around your house. Any open pipe, hole or crack into your house is a big “Vacancy” sign to any critter wanting a warm place to call home. Birds, raccoons and squirrels like to come in from the top; skunks, foxes and bears like to come in from underneath. A little home repair prevention goes a long way in keeping the big and little critters out!



Photo: Clint Henson

Raccoons often find their way into unscreened chimneys.

Jan. 4, 2011: “Hello, there is a deer stuck in my fence.”

Not a good day for the deer and I can already tell what has happened. When I arrive, I am not surprised to see a deer with one back leg caught and twisted in the top two wires of the fence. If the deer is lucky and is still alive, I quickly cut the wires and back away. I hope it will take a deep breath and get up and limp away, but usually the deer is already dead.

When most folks build a fence for their cows, goats and horses, they use a woven-wire sheep fence on the bottom and two barbed wires up on top. Because deer can’t climb through or under the fence, they will try to jump it. As they jump, they tuck their hind legs tight to their stomachs. If one leg goes under the top wire it will twist around the lower wire and easy-as-that, the deer is caught, hanging upside down. It

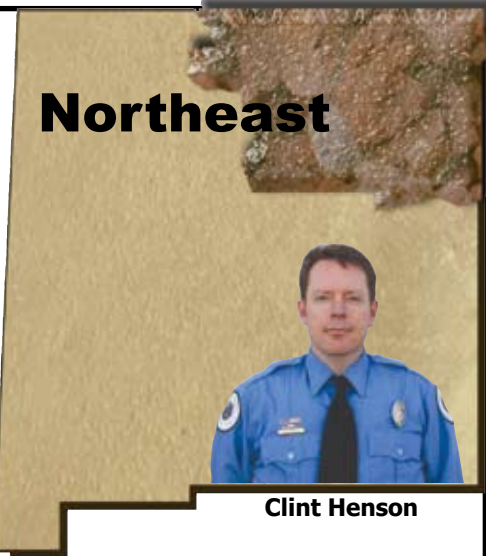
is an impressively simple deer trap and I see it time and time again.

To prevent this, go out and take a quick look around your pasture or horse pen. Adjust your top wires on your fences so that there is at least 10 inches between the two top strands. If you are planning on building any new fence, take a few moments to look through the Department of Game and Fish “Habitat Handbook” on our website at http://www.wildlife.state.nm.us/conservation/habitat_handbook/index.htm. This is a great resource for recommendations for building fences that are friendly to crawling, penetrating and jumping wildlife.

Late winter and spring: “Hello, there are woodpeckers making holes in my house.”

It may be too late to fix this, but if you are building a new house, it is something to consider. The exterior material that you use on your home can be very inviting to woodpeckers. Wood siding that sounds hollow is very attractive to woodpeckers trying to attract a mate or establish territory. They will keep making holes in your house until there is not much left.

Unfortunately, there is no easy solution for this. I have tried everything: balloons, tinsel, fake owls, string tied up like nets. These birds are so smart that they realize very quickly that it is not going to hurt them and they go right back to making holes. Woodpeckers are protected by State and Federal Migratory bird laws so shooting them is illegal and other woodpeckers will



Clint Henson

keep coming so fixing your home often is the only solution. Metal siding that has a solid backing is one option. Fine hardware cloth is another.

Most wildlife complaints result from some type of feeding. Often I am called to a home that is having problems with deer or raccoons only to find that the owner is unknowingly providing food or water. They may have bird feeders and bird baths in the yard, not realizing that all other wildlife will be attracted there. More commonly, feeding dogs and cats out the back door brings skunks, raccoons and bears. Trash and barbecue grills smell so good to wildlife that they may come from miles to find what’s cookin’.

Please feel free to call your local conservation officer or the New Mexico Department of Game and Fish for your wildlife questions and problems.

Clint Henson is the Department of Game and Fish public information officer for the Northeast Area. He can be reached in Raton at (575) 445-2311 or clint.henson@state.nm.us.

Plenty of fishing memories made at Lake Van

By Mark Madsen

Lake Van is a small manmade lake in Dexter. Decades ago, it was a private rod and gun club and offered members waterfowl hunting and warmwater fishing. Today, the Village of Dexter owns the lake and provides enjoyable fishing opportunities for many local anglers.

As a kid growing up in Roswell, some of my first fishing memories were at Lake Van. Thousands of kids who grew up in southeastern New Mexico have similar memories. We fished for trout in the winter and catfish in the summer.

During the summer, my family and friends would spend weekends at the lake – water-skiing during the day and catfishing at night. Back then you could swim anywhere you wanted to in the lake and we spent hours chasing our fishing rods that fish would pull off of the dock into the lake (All you had to do was follow the bubbles). We day-dreamed that the rod-stealing fish were giant channel cats, but in reality the culprits most likely were common carp. Of course, we’ll never know; the fish were never on the line when we retrieved our rods.

In the winter we’d fish for rainbow trout and watch the ducks and geese come and go throughout the day.

Many kids I grew up with started out fishing with Zebco 202s and I can still remember graduating to a Zebco 33. We didn’t have Barbi, Spiderman or Sponge Bob poles like today’s kids. Catfishing consisted of using chicken livers, worms, or ‘stink’ minnows available from the old man at the bait shop. Trout fishing was really simple: salmon eggs, corn, worms or garlic cheese. Back then a jar



Photo: Mark Madsen

Lake Van, a small lake in Dexter, is well-stocked with rainbow trout in the winter and catfish in the summer.

of salmon eggs was twice the size that you find today and tubes of garlic cheese were available at any grocery store.

Many kids growing up in lower Pecos Valley and elsewhere in southeastern New Mexico caught their first fish at Lake Van, and that holds true today. The Department of Game and Fish stocks Lake Van as a winter trout and summer catfish water. Rainbow trout are stocked from November through March when water temperatures are low enough

for trout to survive. Channel catfish are stocked throughout the summer months, normally the week before the major holidays.

Trout fishing at Lake Van hasn’t changed much over the years. People fish either from one of the docks or from shore. A ramp is available on the east side of the lake for those few anglers wanting to use a boat. One of the biggest challenges for trout fishing today is determining which color of Power Bait the fish are

hitting on. Should we try the new garlic-scented salmon peach? Power Bait not working; the old standby of salmon eggs still works. Trout fishing at Lake Van can tend to get a little crowded, especially on weekends when word gets out that the lake has been stocked.

Catfish can still be caught on chicken liver, worms or one of the many prepared dough or dip baits commercially available. As for ‘stink’ minnows, that secret recipe probably has been long forgotten with the closing of the bait shop years ago.

The Village of Dexter charges a nominal fee for fishing at Lake Van. Primitive camping and several RV sites are available. For information, please call Jay at (575) 734-5626.

Mark Madsen is the Department of Game and Fish public information officer for the Southeast Area. He can be reached in Roswell at (575) 624-6135 or mark.madsen@state.nm.us.



Mark Madsen



Big plans for Huey Waterfowl Area

More water, crops will attract birds, birders, hunters

By Dan Williams

ARTESIA – About 10,000 guests stayed at Sam Cordova’s bed-and-breakfast in February, but they didn’t come for the scenery.

About 6,000 sandhill cranes, thousands of ducks and 60 or so mule deer were at Cordova’s place for the groceries. From dawn to dusk, they dined on corn and sorghum, grown especially for them. When they weren’t eating, they rested in the farm’s new shallow ponds.

“This year has been a great turnaround for the W.S. Huey Waterfowl Area,” says Cordova, a 15-year employee at the farm and the newly appointed area manager. “We’ve been able to get the water back in the ponds and grow more food for the birds. The cranes and ducks are back ... and we’re hoping to start attracting snow geese again.”

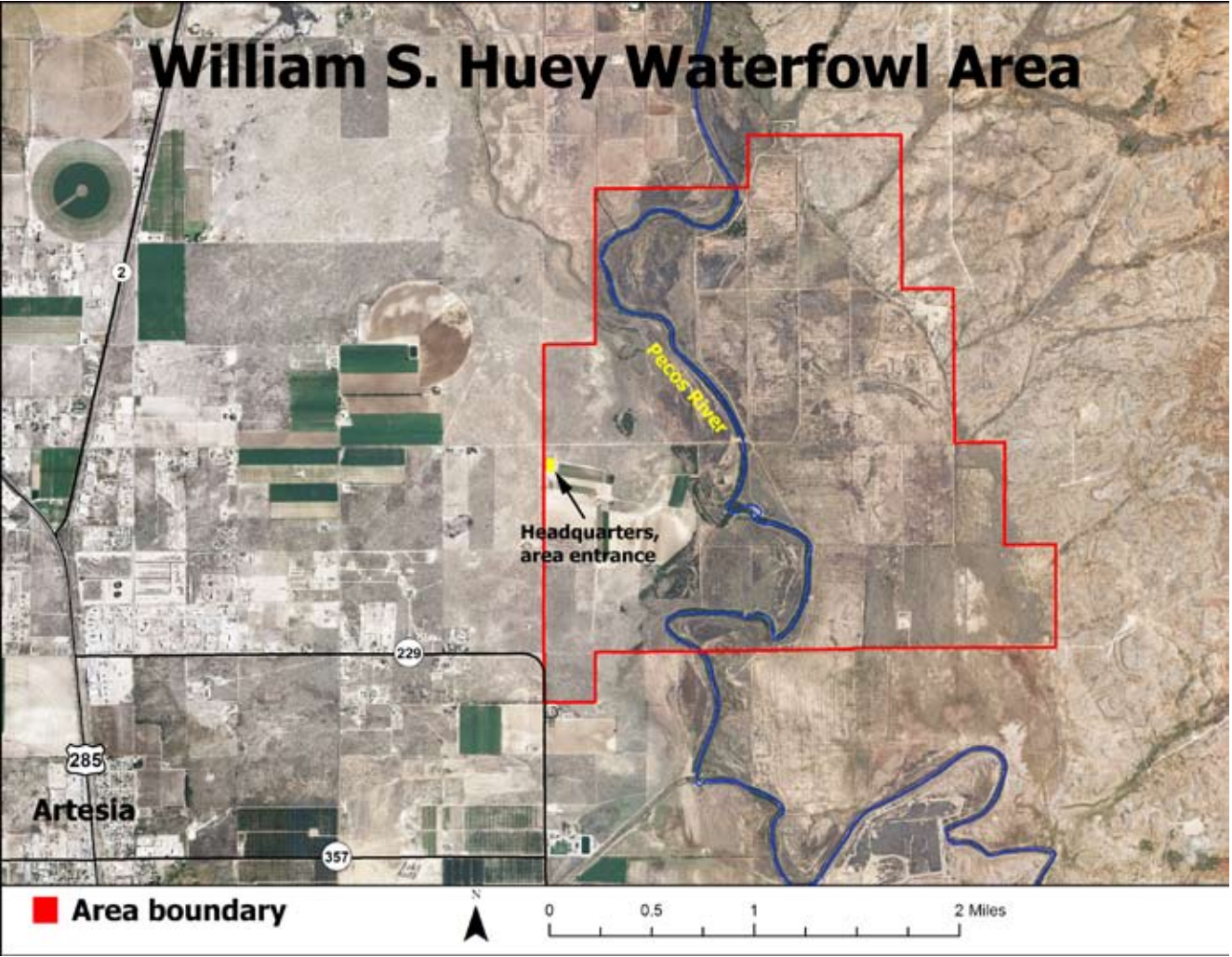


Initially purchased in 1963, the area formerly known as the Artesia Waterfowl Area has grown to 2,840 acres, 640 owned by the State Game Commission and 2,200 owned by the U.S. Bureau of Reclamation and managed by the Department of Game and Fish as a waterfowl refuge. Sitting along the Pecos River just two miles northeast of Artesia, the area has the potential of becoming an important resting place for thousands of waterfowl every year.

To accommodate the birds, the Department is moving forward with plans to replace an old flood-irrigation system with a more efficient pivot system that should more than double production of corn, sorghum, winter wheat and alfalfa. More ponds will be created to give the birds a place to roost.

“The improvements will mean more birds,” Cordova says. “We’re hoping to bring back the snow geese that used to use the area every year. We’re also hoping more people will start coming out to see the area.”

Mike Gustin, the Department’s assistant chief of habitat and lands, envisions the Huey Waterfowl Area becoming a destination for birders and wildlife watchers. Eventually, as more birds begin to use the area, it will provide hunting opportunities.



“We want to make the area something like the Bernardo Waterfowl Area, with hunting, educational and viewing opportunities,” Gustin says. Sportsmen will help pay for the improvements through the state’s \$4 Habitat Management and Access Validation, required with hunting and fishing licenses, and federal excise taxes on hunting equipment and ammunition.



The W.S. Huey Waterfowl Area near Artesia is home to 60 to 100 mule deer.
Photo: Sam Cordova

“Eventually, we’re looking forward to having a nice tour route with viewing stations and an information center at the entrance,” Cordova says. “I think people will enjoy coming out for a tour. There already are lots of birds here, and the new irrigation system will bring even more.”

The area, named after former Department Director W.S. “Bill” Huey, is home to a variety of wildlife, including pheasants, wild turkeys, predators and a resident herd of 60 to 100 deer.

“People come out for the first time and they are amazed at what’s here now,” Cordova says. “Just wait until they see it when we’re finished.”

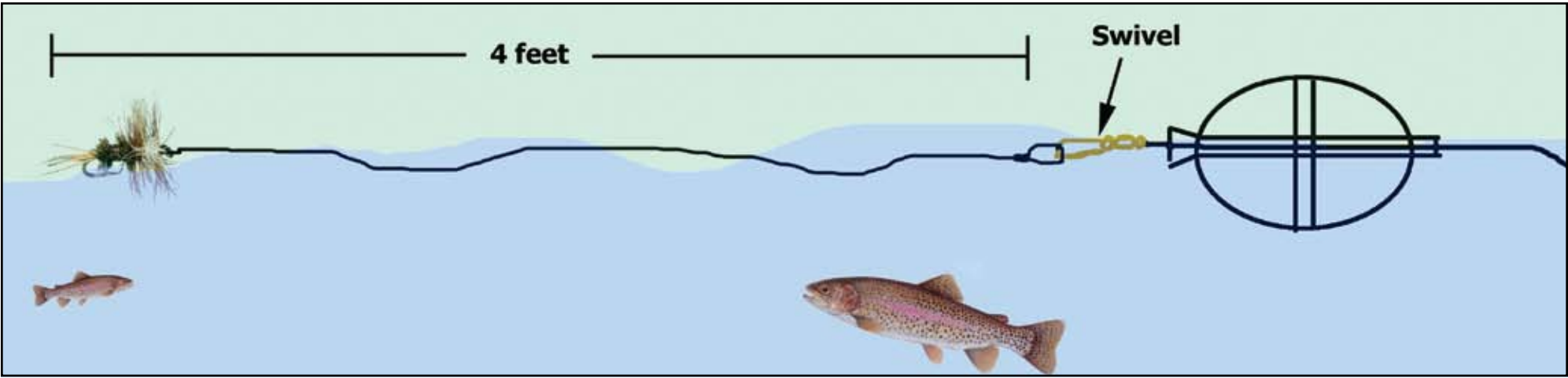
The W.S. Huey Waterfowl Area is open to wildlife-associated recreation other than hunting or fishing through the Gaining Access Into Nature, or GAIN, program. Visitors ages 18 or older must have either a GAIN permit or a current hunting or fishing license, and a Habitat Management and Access Validation.

GAIN Permits, including the validation, cost \$19 for a full year or \$8 for five days. Permits are available from license vendors statewide, Department offices in Santa Fe, Albuquerque, Las Cruces, Roswell and Raton, or online at www.wildlife.state.nm.us.



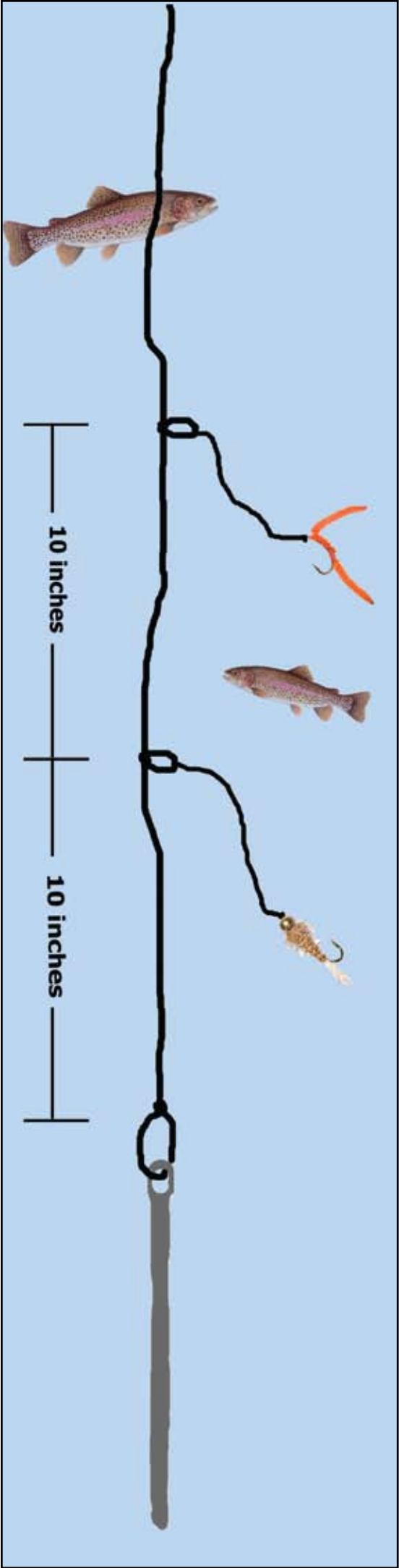
Photo: Dan Williams

Sandhill cranes use shallow ponds as roosting areas during migration. Rejuvenated ponds at the W.S. Huey Wildlife Area near Artesia attracted about 6,000 cranes in February. Next year, more pond developments are planned, and should bring in more cranes and perhaps some snow geese.



A different spin on fly fishing

Catch more fish; no fancy gear required



Illustrations: Dan Williams

By Dan Williams

So you want to try fly fishing. Better open your wallet, sign up for lessons and subscribe to a few snotty magazines. Right?

Not necessarily. There are ways to present artificial flies to hungry trout that don't involve expensive rods, line and fancy vests. You don't need hours of practice with a whippy rod or a degree in entomology. All you really need is a standard spinning rod and reel, some basic gear and a desire to catch fish.

Once you learn to rig up a bubble-and-fly or a nymph with a sinker, you'll be hooked. No more messing with smelly baits; fish can be easily released, and best of all, fly anglers catch more fish.

"A lot of people like to tie flies and want to fish with flies, but they are scared of fly casting," says Ti Piper, fishing author and educator who conducts fishing clinics for the Department of Game and Fish. "They want a technique that does not use a fly rod."

Trout, whether they live in a stream or lake, almost always will take a fly. The trick, experts say, is how you present that fly.

Bubble and fly

Late in the evening on a mountain trout lake is prime time for an angler with a bubble-and-fly rig. All it takes is a spinning rod and reel, a plastic bubble half-filled with water for casting weight, a 4- or 5-foot length of 3X or lighter leader material, and a fly.

Thread the line from your rod through the bubble with the large stopper end pointing away from the rod and then tie on a swivel so the bubble will slide freely toward you but will stop at the swivel. Tie a loop in the leader and fasten it to the swivel, then tie your fly onto the end of the leader.

To fish the fly, simply cast it out and slowly retrieve it. Watch the area behind the bubble wake. If you see a fish rise there, set the hook. Experiment with different retrieval speeds and flies. Some anglers pinch a small sinker to the leader to make the fly sink a bit.

Piper likes to use propeller flies such as Pistol Petes behind a bubble. Other flies work well depending on the water. Brown, black and grey flies usually work best.

Pencil sinker and nymphs

"About 90 percent of what trout eat is close to the bottom," Piper says. "When you can put a couple nymphs down there with a pencil sinker, you can have a good time catching, not just fishing."

A pencil sinker and nymph rig is very effective in large rivers such as the Rio Grande and the San Juan.



Photo: Marty Frentzel

A bubble-and-fly rig often is the perfect combination to catch late-evening rising trout in New Mexico's high-country lakes. Above, anglers try their luck in the clear water of Goose Lake near Red River.

It's easy to set up – almost the same as a bait angler would rig for salmon eggs, worms or prepared bait. Basically, it's just a matter of suspending one or two flies above a weight. Pencil sinkers work best because their thin shape tends not to snag on the bottom as often, but any sinker will do.

The technique is to cast slightly upstream and keep the slack out of the line as you bounce the sinker along the bottom. When a fish takes the nymph, it will be a gentle tug, maybe only a slight twitch or hesitation in the line.

Most anglers like to use two nymphs of different patterns, such as woolly worms, bead-head or burlaps spaced about 10 inches apart. Experiment with different patterns and colors and be ready to set the hook. Chances are you'll be catching more trout than the angler upstream with a fly rod.

Fishing waters under attack

Invasive species, diseases hitch rides on anglers

By Dan Williams

The fly-fisherman was so delighted about hooking and landing his first native Gila trout that he asked his partner to document it on video so he could share the experience with members of the species recovery team who made it possible.

Unfortunately, it didn't get the reception he imagined.

The video seemed innocent enough – an excited angler standing at the top of a waterfall, hooking a trout in the pool below and then gently pulling it to the top and releasing it to swim upstream. To the angler, it was a lifetime thrill, the chance to catch a native trout that only a year before had been taken off the federal Endangered Species List. To the biologists who worked years for the downlisting, the video was quite disturbing.

Unknown to the angler, the waterfall was a natural barrier keeping non-native fish from contaminating the pure-strain native population of Gila trout living upstream. In this case, the fish was a native Gila trout, but it could have been much worse. Moving just one non-native trout from below the waterfall to the stream above could have altered the gene pool.

“Simply moving one fish could undo years and tens of thousands of dollars of recovery efforts,” said Kirk Patten, a Department of Game and Fish biologist who specializes in native fish recovery. “Putting fish on a stringer for five minutes and walking upstream and releasing them because you decide you don't want them can do the same thing.”

Moving fish from one section of a stream to another, or one water to another are among several scenarios that cause dedicated fisheries biologists to lose sleep. Others include illegal stocking, and the transmission of diseases and invasive species on waders and fishing and boating equipment.

A myriad of threats

“Disease, invasive species, plants ... right now there are many things threatening our



Photo: Colorado Division of Wildlife

Whirling disease, which attacks trout spinal columns and nervous systems, leaves fish deformed and unable to swim normally.



Photo: Pat Morison

Goldfish likely introduced by someone releasing their pets multiplied so quickly in Quemado Lake that they displaced trout and other game fish. Above, a crew removes a boatload of goldfish from the lake. Today, nonreproducing tiger muskies are doing the job.

fisheries,” said Mike Sloane, the Department’s chief of fisheries. He said the Department has spent \$6.5 million since 2001 to clean infected hatcheries and construct new facilities to protect trout from whirling disease, which likely was introduced by an illegal stocking of public waters.

Four of the Department’s six hatcheries were infected with whirling disease, which attacks the nervous system and spine of young fish, causing them to swim in circles. Once the disease spores are introduced into a stream or lake, they are impossible to remove. In New Mexico, several streams are infected, including the Pecos and the world-famous San Juan rivers.

Today, the infected hatcheries are disease-free and almost fully operational again. The focus now is to try to prevent whirling disease and other invasives from spreading. And that is a tough order to fill, especially when many of those invasives are deposited in the state’s clean waters by anglers.

It only takes one spore or one cell to contaminate a stream or lake with a disease or invasive species. By practicing a few common-sense techniques, anglers can take the lead in staving off attacks from whirling disease, rock snot, chytrid fungus, zebra and quagga mussels, and New Zealand mudsnails in our lakes and streams, Sloane said. By paying attention to how – and especially where – they release their catches, and never releasing baits or pet fish, anglers also can protect native and sport fish from invasive threats such as northern pike, goldfish and white suckers.

“We’re asking anglers to practice a few common-sense techniques: check, clean and dry,” Sloane said.

• **Check:** Before leaving a river, stream or lake, remove all obvious clumps of algae and plant material from fishing gear, waders, clothing

and footwear, canoes and kayaks, and anything else that has been in the water. Look for hidden clumps and leave them at the site.

• **Clean:** Soak/spray and scrub boats and all other hard items for at least one minute in either very hot (140°F) water, a 2 percent bleach solution, or a 5 percent dishwashing detergent solution. Absorbent materials such as clothes and felt soles on waders should be soaked for at least 40 minutes in very hot water (140°F), or 30 minutes in hot water (115°F) with 5 percent dishwashing detergent.

• **Dry:** If cleaning is not practical, after the item is completely dry to touch, wait an additional 48 hours before contact or use in any other waterway.

Sloane said anglers also can help prevent spreading invasives from one water to another by cleaning and drying waders and other equipment before fishing somewhere else.

Felt-soled waders

The threat of spreading diseases and invasive species has prompted many anglers and some fishing industry representatives to support a move away from the use of felt-soled waders. Because they are difficult to clean and



File photo

A 13-year-old angler caught this northern pike in Eagle Nest Lake in November, 2010. Officials believe the pike was illegally stocked in the lake.



disinfect, felt soles can harbor whirling disease spores and other invasives for long periods of time, allowing them to “hitchhike” from one water to another.

The national anglers’ organization Trout Unlimited has called for the elimination of felt soles on wading boots by 2011. Some wader manufacturers have stopped selling felt soles, and two states, Alaska and Vermont, have banned the use of felt soles in public waters. New Mexico has elected to pursue an education campaign rather than a ban on felt soles.

“We’re OK with that, but I think eventually we’ll see everyone move away from felt,” said Toner Mitchell, president of the Truchas Chapter of Trout Unlimited and fly-shop owner. “I personally don’t use felt soles and we don’t sell them in our shop, though. Our rationale is that every little bit helps.”

Proponents of felt-sole bans say it could go a long way toward helping prevent the spread of whirling disease, chytrid fungus and didymo, also known as rock snot.

Fungus and rock snot

Chytrid fungus infects the skin of amphibians and has been responsible for severe declines in populations worldwide. Discovered in New Mexico in 2000, it has infected populations of Chiricahua leopard frogs in the southwest and boreal toads in the north.

Didymo, or rock snot, is an aquatic nuisance species known to be transferred around the world on boats, fishing equipment and footwear. It has been found in the upper Pecos River and the Santa Barbara River in New Mexico. the single-celled alga gets its name from its large, ugly growths on stream gravels. It can undergo explosive growth, creating massive algal blooms that form dense mats that can impact native algae and invertebrates – the food base for native and sport fish.

“So far, we’ve only found rock snot in two streams,” Sloane said. “Why it hasn’t spread



Didymo, a single-celled alga, is called “rock snot” because of its large, slimy growths on stream bottoms. The invasive alga forms thick mats that can impact the food base for fish. In New Mexico, it has been found in the upper Pecos and Santa Barbara rivers.

more, I don’t know, but it’s definitely something people need to be aware of.”

Goldfish and pike

Another threat to New Mexico’s native and sport fisheries is the intentional or unintentional stocking of fish into public waters. It can happen when someone believes stocking a few fish might improve a fishery so they move fish from one water to another. It can happen by dumping a bait bucket, or by releasing an pet goldfish into a new home.

While it may be tempting to release an unwanted goldfish or introduce a popular game fish into another water, doing so can ruin an existing fishery. The newcomers may multiply so fast that they displace the game fish, which happened at Quemado and Bluewater lakes when goldfish were introduced. Bait buckets of unused live minnows can be the beginnings of new populations of white suckers and other unwanted species.

Most recently, northern pike released in Eagle Nest Lake threaten one of the state’s best trout fisheries.

The Department was first alerted to the presence of northern pike in the lake when a 13-year-old boy caught one in November 2010. Since then, four more have been turned in by Eagle Nest Lake anglers, including two during the winter ice fishing season while fishing for perch or trout. That worries fisheries biologist Eric Frey.

“Normally, to catch a northern pike you have to be fishing for pike,” he said. “To me, that means either these anglers were pretty lucky, or that there’s a pile of pike.” He plans to put out some nets and conduct electroshocking surveys this spring to estimate the number of pike in the lake.

If northern pike have established a population in Eagle Nest Lake, they could reproduce quickly and have a very negative impact on the existing trout and salmon population, Frey said. Trout and salmon would be easy prey for the large predatory pike, which have been known to take over trout lakes in California and other states.

“It really would be a shame to see that happen at Eagle Nest,” Frey said.

N.M. has managed to keep mussels out -- for now

Two of the most serious threats to U.S. fisheries and waterways, zebra and quagga mussels, have yet to turn up in New Mexico, but biologists say it’s only a matter of time.

“We’re surrounded by them,” said Ken Cunningham, assistant fisheries chief and Aquatic Invasive Species coordinator for the Department of Game and Fish. “They have been found in every one of our neighboring states.”



In an effort to slow or even prevent the invasive mussels from entering New Mexico waters, the state launched an aggressive educational and inspection campaign with partners at State Parks, the U.S. Army Corps of Engineers and the U.S. Bureau of Reclamation.

“Currently we’re focusing on four components: outreach to get the word out as much as we can, monitoring waters to check for mussels, boat inspections at major lakes, and decontamination if we find a boat carrying the mussels,” Cunningham said.

Introduced from Europe and now found in waters nationwide, zebra and quagga mussels have spread rapidly across the country by hitching rides on boats, motors and equipment. The microscopic to two-inch long mussels can ruin motors, clog waterworks and cut hands with their razor sharp shells. Once established, the mussels are impossible to remove.

Last year, officials monitored 22 lakes for possible mussel contamination and inspected boats at 12 lakes. This year, boaters can expect even more inspections as efforts continue to keep the mussels from being introduced from out-of-state waters.



“So far we’ve been fortunate,” Cunningham said. “We’ve had some close calls – stopping three contaminated houseboats and a barge before they could launch. We can’t eliminate the risk, but we’re trying to minimize the risk as much as possible.”

Boaters can help prevent the spread of zebra and quagga mussels by thoroughly inspecting and cleaning their boat and all equipment, draining all water, and drying everything, including motors and trailers, before entering another water.





Desert refuge

Living Desert Zoo & Gardens celebrates 40th anniversary

Story and photos
by Marti Niman

Perched high on a mesa overlooking the broad expanse of the Permian Basin is a little-known secret garden rich with the flora and fauna of the Chihuahuan Desert.

The Living Desert Zoo & Gardens State Park offers a close-up view of the abundant and diverse life hidden behind the austere façade of the lowland desert. Visitors enter the park through a spacious museum that serves as a gateway and orientation to the winding paths that offer a surprise at every turn. The park celebrates its 40th anniversary this year, attracting visitors from across the country and the world, who often come to see Carlsbad Caverns National Park and discover this desert refuge en route.

"The park began in the late 1960s when a group of community business leaders had the idea for a zoo and lobbied for one through the legislative process," said Park Superintendent Ken Britt. In 1969, 1,120 acres on a limestone mesa were purchased and the park opened its doors to the public June 12, 1971. Its location affords surprisingly expansive views and steep cliffs

densely covered with prickly pear and ocotillo. Visitors meander on paved, ADA-accessible paths that wind through native gardens and native animal exhibits, from rattlesnakes and raptors to javelinas and pronghorn antelope.

"Our gardens mimic habitats in the Chihuahuan Desert such as pinon-juniper, sand hills, gypsum hills or desert uplands and feature the plants that grow in those areas," Park Horticulturist Chris Dawson said.

High standards

Most of the animal exhibits are naturalistic, using rocklike caves and cliff faces fabricated from concrete with alcove openings for viewing and native landscaping inside. Britt has ushered the park through numerous changes since his tenure began in 1994, including a new commissary for feeding the animals, a veterinary clinic and a new wild cat exhibit. In 2002, the Living Desert became certified for the first time as a member of the American Zoological Association (AZA) – a rigorous and demanding process that assures professional standards in every aspect of zoo operations.



Bird of paradise

"It requires a real team effort among staff, volunteers and the Carlsbad community," Britt said. "It is very satisfying to include ourselves with 216 zoos across the country with high standards. We couldn't do it without everyone being on board." Member zoos are required to be recertified every five years and the Living Desert will go through the process again this year.

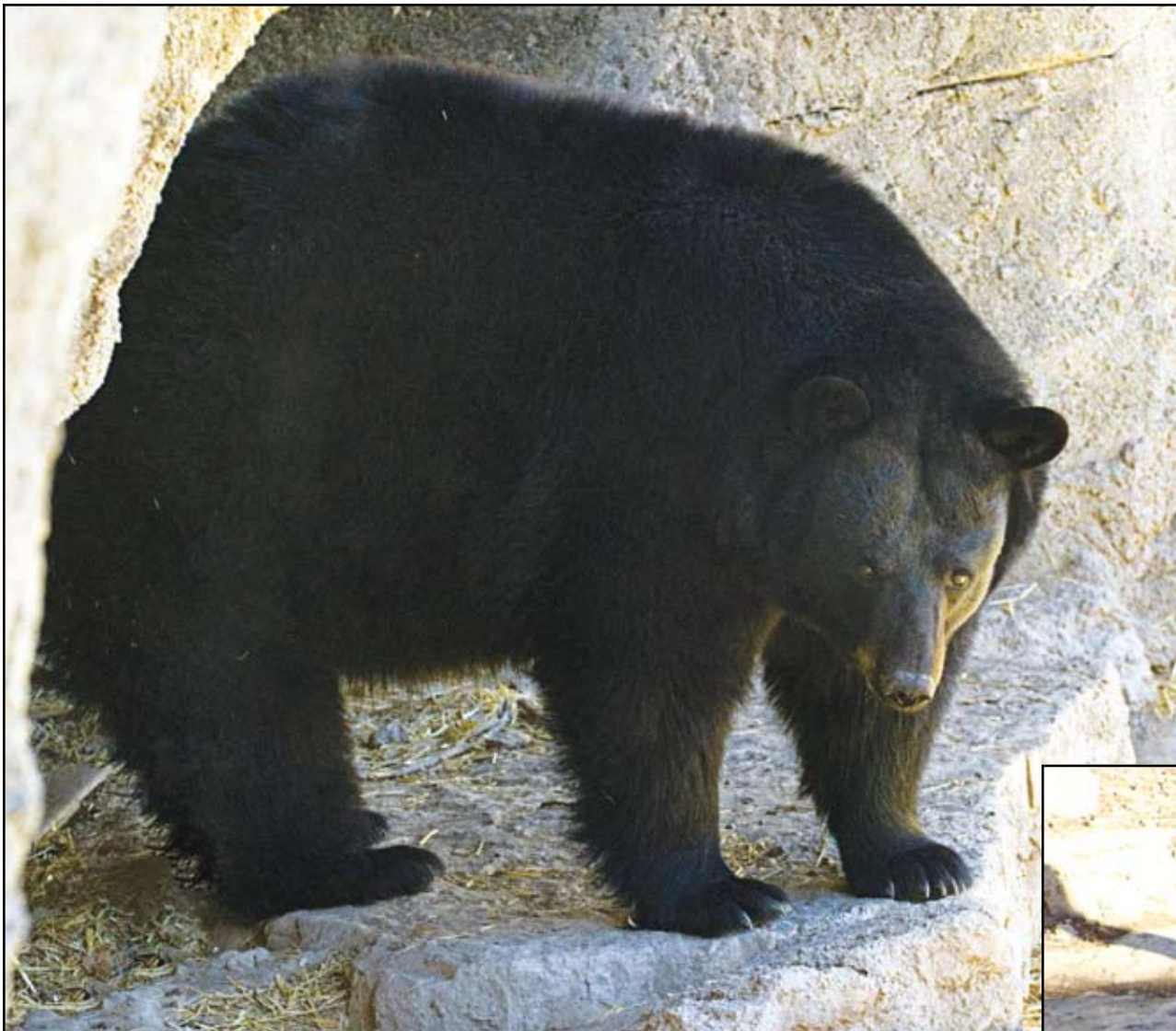
"It's a two- to three-day inspection," Animal Curator Holly Payne said. "We sit before a committee and they look at everything – veterinary care, diet, buildings, staffing, budget, maintenance, safety, volunteer information, education – from top to bottom."

Endangered species

Other significant milestones are the park's participation in two endangered species recovery programs: Mexican wolves and bolson tortoises. The Mexican wolves have been at the park since the 1970s and are part of the AZA Species Survival Plan (SSP). Its mission is to manage and conserve threatened or endangered species populations with the cooperation of approved captive facilities.

"Our wolves are very genetically important and most likely would not be released into the wild,"

... continued on Page 11



Maggie the Bear has become somewhat of a celebrity at Living Desert Zoo & Gardens State Park. She enjoys painting -- her artwork is for sale at the museum -- and opening edible presents on her birthday.

Photos: Marti Niman, above; Kathryn Law, right



... continued from Page 10

Payne said. The SSP staff makes the decision about where they will be based and could move them according to the needs of program, she said. In December, one of the male wolves was moved to El Centro Ecológico de Sonora in Hermosillo, Sonora, to breed with one of its females.

The bolson tortoise is native to the Chihuahuan Desert and the Living Desert has a cooperative agreement with the Turner Endangered Species Foundation in its effort to restore the animal to southern New Mexico. The two entities maintain the adults in outdoor enclosures and incubate eggs and rear young in smaller facilities.

"It has been very successful and we're extremely proud of our program with the Turner Foundation," Payne said. The species was discovered in the 1950s.

Maggie Oso

One of the park's most charismatic residents is Maggie the Bear or Maggie Oso, known far

and wide as an accomplished artist with numerous exhibits to her credit.

"We got her in 2005 from a wildlife rehabilitation facility in

Springfield, Missouri, after she was confiscated in a raid when she was about a month old," Payne said. Maggie was dehydrated and in very poor condition. The young bear was brought back to health before coming to the Living Desert at six months of age. Because Maggie was accustomed to humans, Payne decided to try painting with her

as an enrichment program. Maggie took to it like a bear to honey and now her paintings are sold in the museum by the Friends of the Living Desert.

"I try to paint with her once a week,"

Payne said. Maggie is honored every year with a birthday party and gifts, with the packaging as part of the gift.

"They are wrapped with fruit ribbon, peanut butter glue and a box inside another box," Park Educator Kathryn Law said. "The first year she reared up and came down hard on the package, then opened it with her claws. This year, with 168 guests in attendance, she turned around and sat on it."

Before Maggie there was El Patron, a huge male bear from Texas about the size of a female grizzly that was caught vandalizing hunting



Endangered Mexican wolves have been at Living Desert Zoo & Gardens State Park since 1970 as part of the American Zoological Association's Species Survival Plan.



Pink water lily



Canyon sage

cabins. After his third offense he was slated to be euthanized unless a home could be found.

"We said we'd love to have a bear from the Chihuahuan Desert," Britt said. "The first night here he took a walk through Carlsbad because he didn't know he wasn't supposed to leave and we didn't know he could, since we'd never lost a bear before." At 3 a.m. park staff caught up with him and tranquilized him, with the help of local law enforcement. Staff remodeled his exhibit with an overhang so he couldn't get out.

"He lived to be 21 years old," Britt said. "He was a real crowd pleaser; everyone loved his spunk. Maggie is a crowd pleaser as well."

In addition to her "studio" time and edible gifts, Maggie is fed three times a day and her food is hidden so she has to search for it. Such animal enrichment helps prevent the boredom that comes with captivity for all the animals. Pizza boxes, egg cartons, brightly-colored plastic boomer balls and hard hats may be seen scattered around the exhibits. Birds of prey get mice or rats and the cats get rabbits, quail or a roll on catnip. Wolves get an approved list.

"We don't give them anything associated with humans," Payne said. "The premise is that all wolves are treated like release animals and we don't interact with them."

So forget the hard hats and plastic balls or pig



Swainson's hawk

ears. The wolves get elk antlers or mice and sometimes the keepers fill in their holes so they have to dig them out again. Animal enrichment programs are part of the AZA standards and must be documented. Most of the enrichment supplies are purchased by volunteers. Like most state parks, the Living Desert relies heavily on volunteer support.

Nonprofit support

"We have two nonprofits that support us – the Friends of Living Desert and the Carlsbad Horticultural Society," Britt said. The Friends help with interpretive programs and special events and the Horticultural Society runs the gift shop and all things botanical.

"Without the Friends and the Horticultural Society we would be hurting, Payne said. "We get Maggie's paint and paper through the Friends, who sell her paintings so the money stays here in the park. If we are short on feed, they buy that. All the money for the bolson tortoise program is raised by the Friends."

"The Carlsbad Horticulture Society sells native or xeric plants twice a year and gives a percentage of gift shop and plant sales to the park," Dawson said. "They buy us tools, fertilizer and plants, which really helps because there's no budget for that."

The Horticultural Society launched one of the park's most significant attractions many years ago with a multi-million dollar donation of tropical succulents. The park moved its maintenance shop out and put the greenhouse there instead. With its gigantic cacti, climbing bougainvillea, lush exotic flowers and steamy microclimate, it could be a South American jungle.

"The cacti grow so high they start to put the ceiling out so I have to cut them off," Dawson said. "They are slow-growing but they get there." As



Great horned owl



Pronghorn antelope



This amelanistic (albino) western diamondback rattlesnake is one of many reptiles on display at Living Desert Zoo & Gardens State Park. The snake is missing the pigment, melanine, which gives animals much of their coloration.

... continued on Page 12





Living Desert Zoo & Gardens State Park is home to the endangered bolson tortoise and the common western diamondback rattlesnake.

Desert refuge

... continued from Page 11

a staff of one in the botanical gardens, Dawson oversees the gardens throughout the grounds and the exhibits as well as the greenhouse.

"When I go to the AZA horticultural conferences, I meet a lot of smaller zoos with more staff in botanical sections," she said. "I rely a lot on volunteers and our native plants are used to this environment, which is harder on us than the plants."

Despite the best efforts at trimming the trails to look natural and enhancing the exhibits, the park can present some hazards for the unwary.



Prickly pear cactus flower

him again. I jabbed my elbow into a cactus trying to start the blower...a lot of things in the desert either sting, bite or are poisonous!"

Educational outreach

Education about the beauty and dangers of the desert has taken a larger profile at the park through the years. Law oversees the park's programs such as ZooCamp, preschool story time, outreach programs and docent training, which were initiated years ago by volunteer Susan Young. She retired to Carlsbad because of the Living Desert.

"I was a docent at the Lincoln Park Zoo in Chicago and volunteer coordinator for five zoos," Young recalled. She said she grew up in New Mexico and wanted to return. "I found out where there was a zoo that needed a docent program and here I am."

Young started the first docent training program in

1995, designed and wrote a training manual and launched the summer ZooCamp, which offers six different curricula so the kids can go to camp for six years and not repeat the same theme. Students come from Texas, all over New Mexico and beyond. Law said that some kids come visit their grandparents who live in Carlsbad so they can go to ZooCamp. Due to school schedules and so much testing, the kids don't have much free time until the end of the year. "We had more students in May than the rest of the year combined," Young said. "They should learn more than just how to take a test."

Young also wrote, illustrated and published four children's books about Maggie and one each about vultures and snakes. "There weren't any books for kids about vultures, so that's why I wrote it," she said. Young is training more docents so she can cut back to four days a week, now that she is 84 years old.

Young would like to see an outreach program with live educational animals that could be taken to schools and community activities, but it would require a separate facility to house specially-designated educational animals. The AZA rules prohibit taking zoo animals off grounds. Law has her own hognose snake named Oink that she takes to programs to help defuse people's fears about the slithery creatures.

Apache connections

The Living Desert hosts one of the more unique traditions in the state park system that encompasses four days of traditional ceremony, feasting and dancing. The Mescal Roast and Mountain Spirit Dances is a celebration of Mescalero Apache culture that is shared by the tribe with the community. It began 25 years ago when then-Animal Curator Mark Rosacker wanted to connect desert plants and animals with the local indigenous culture. He established a relationship with the Mescalero, asked questions and invited them to share their culture.

"They are very proud of their traditions and proud to share them with us and the community," Britt said.

The focal point is the harvest of mescal by the



A young Mescalero Apache prepares to dance in the annual Mescal Roast and Mountain Spirit Dances ceremonies.

school kids. The mescal is roasted for four days in a fire pit on the park grounds. The event begins with the blessing of the agave roasting pit by Apache spiritual leaders. The ceremony is not a reenactment but an actual ritual observance. Visitors are treated to a typical feast dinner followed by traditional Apache War Dances and Mountain Spirit Dances. The dinner is modeled after traditional feasts served during coming-of-age ceremonies for young women on the reservation. The Mescal Roast draws about 2,000 visitors annually.

Asked what the future may bring for the Living Desert, Britt said he hoped to see it continue to grow and offer top-level educational programs for all ages and generations.

"We're poised to replace the reptile house with a new facility," Britt said. We'd also like to modify the water pond into a playa exhibit to show a feature commonly seen in the Chihuahuan Desert environment."

At this time, economic constraints likely will limit new developments, and staff members are busy taking care of what the park currently offers – which is considerable.

"I can't explain but I feel so sorry for people who don't work in a zoo," Young said. "It's a desire to see children learn the truth about animals and the ecology. The Apache have a word for it that means we are all one; we're all in this together. It's important for kids to know that."

Marti Niman is the public information officer for the State Parks Division. She can be reached at (505) 827-1474 or marti.niman@state.nm.us.

Often incorrectly described as pigs, collared peccaries, or javelinas, are a separate species native to the Southwest.



Parks events celebrate spring, summer

Story and photos
by Marti Niman

State parks across New Mexico spring into action this season with fishing derbies, an archery tournament, concerts, ceremonies and interpretive programs. Most New Mexico residents live within 40 miles of a state park and can take advantage of incredible bargains for the whole family. Here are just a few of the events scheduled this spring and summer at state parks.

Fishing and more



Cast for kids, Navajo Lake State Park
For anglers and their families, **Cimarron Canyon's free Children's Fishing Derby** is scheduled May 7 for three age groups; day-use fees apply (575-377-6271). June 4, **Navajo Lake's C.A.S.T. for Kids** teams local volunteers and agencies to sponsor a day of fishing for disabled and disadvantaged children. Barbecue lunch and awards are provided for all participants (505-632-8734). May 28 – June 5, **Sugarite Canyon's Annual Fishing Derby** lures anglers with a fishing boat and thousands of dollars in prizes (575-445-5607). If nine days on the water isn't enough, fishing addicts may head east to **Clayton Lake June 4 -5 for its Annual Trout Derby**. Sand digs for kids, a horseshoe tournament and prizes for the biggest trout, bass, walleye and channel catfish make this the biggest party in town. A grand prize boat with trailer, \$1,000 cash for second place and numerous door prizes add to the fun. The entrance fee is \$15 (575-374-8808).

Archery and Easter eggs



3-D Archery Tournament, Camp Robledo, Leasburg Dam State Park

April 30 – May 1, **Leasburg Dam's Annual 3-D Archery Tournament** at Camp Robledo near Radium Springs attracts competitors of all ages, with 3-D targets that include lions, tigers and bears (575-642-7417; www.kempyouthhuntclub.com). Teach the youngsters some egg stalking skills at the **Annual Easter Egg Hunts** scheduled April 23 on the shores of Lion's Beach at Elephant Butte Lake (575-744-5923) and April 24 at Caballo Lake/Percha Dam's Riverside RV Rally site (575-743-3942).

Native plants, butterflies



Bodacious Butterfly Festival, Sugarite Canyon State Park

Gardeners and birdwatchers won't want to miss **Rockhound's Desert Alive! Native Plant Sale** on April 9 that also includes plant and bird walks (575-546-6182). May 7-8, **Rio Grande Nature Center's Herbfest** focuses on herbs and native plants of the bosque with plant sales, speakers, special programs, arts and crafts vendors, guided walks, kid's activities and live birds. The park's annual **BioBlitz** on June 10 is a day-long exploration with scientists to identify different types of life and share discoveries with other explorers (505-344-7240). Learn the martial art of stalking butterflies June 25-26 at **Sugarite Canyon's Bodacious Butterfly Festival** (575-445-5607).

For anglers and their families, **Cimarron Canyon's free Children's Fishing Derby** is scheduled May 7 for three age groups; day-use fees apply (575-377-6271). June 4, **Navajo Lake's C.A.S.T. for Kids** teams local volunteers and agencies to sponsor a day of fishing for disabled and disadvantaged children. Barbecue lunch and awards are provided for all participants (505-632-8734). May 28 – June 5, **Sugarite Canyon's Annual Fishing Derby** lures anglers with a fishing boat and thousands of dollars in prizes (575-445-5607). If nine days on the water isn't enough, fishing addicts may head east to **Clayton Lake June 4 -5 for its Annual Trout Derby**. Sand digs for kids, a horseshoe tournament and prizes for the biggest trout, bass, walleye and channel catfish make this the biggest party in town. A grand prize boat with trailer, \$1,000 cash for second place and numerous door prizes add to the fun. The entrance fee is \$15 (575-374-8808).



Vietnam Veterans Memorial State Park near Angel Fire in northern New Mexico is the setting for the park's annual ceremony honoring veterans. This year's May 27-30 ceremony will include flag ceremonies, a candlelight vigil and the 44th Army Band.

Honoring veterans

Almost 500 motorcyclists visit Vietnam Veterans Memorial in Angel Fire on May 20 during the **Run for the Wall**, a cross-country rally from the west coast to Washington, D.C. honoring POW/MIAs. Veterans are honored May 27-30 during the park's **Memorial Day Weekend ceremony**, featuring the 44th Army Band, singers, guest speakers, helicopter viewing, a candlelight vigil, guided tours and flag ceremonies (575-377-2293). **Elephant Butte Lake's Fly Freedom's Flag** on May 28 presents a POW/MIA ceremony at the Damsite Marina, a boat parade to Marina Del Sur for a memorial wreath toss and shoreline procession to Rock Canyon Marina (575-744-5567).

History comes alive

Cultural history buffs will enjoy **Living Desert Zoo & Gardens 25th Annual Mescal Roast and Mountain Spirit Dances** May 5-8. This Mescalero Apache interpretive and ceremonial event offers a traditional feast, interpretive roundtable, arts and crafts sale, Apache War Dances and Dance of the Mountain Spirits. Tickets are \$15 each and limited to 300 per night (575-887-5516). Experience the beauty and history of Dog Canyon and the Tularosa Basin during **Oliver Lee Memorial's Heritage Preservation Day** on May 14, with special programs in a quiet green oasis of cottonwoods, ash trees and maidenhair fern (575-437-8284). Take a stroll back in time May 22 during **Sugarite Canyon's Coal Camp Days**. Meet



Mescal Roast and Mountain Spirit Dances, Living Desert Zoo & Gardens State Park

characters eager to talk about their lives in the Sugarite Coal Camp during the 1930s (575-445-5607). June 10, Living Desert Zoo & Gardens 40th Anniversary Celebration features a day of special programs and events (575-887-5516).

characters eager to talk about their lives in the Sugarite Coal Camp during the 1930s (575-445-5607). June 10, Living Desert Zoo & Gardens 40th Anniversary Celebration features a day of special programs and events (575-887-5516).

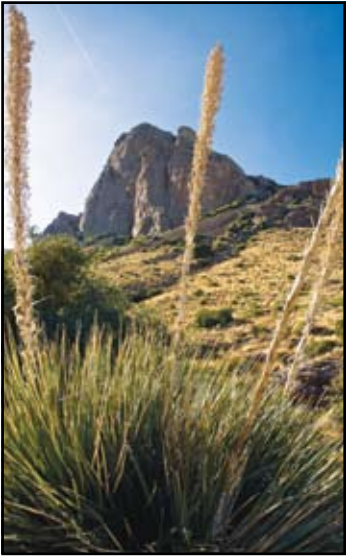
Music

Rockhound's Music in the Park series begins May 21 with a variety of musicians every third Saturday through September. May's concert stars Floyd Utterback at the keyboard and the Bob Delp Duo play country western and rock 'n roll June 18 (575-546-6182). June 4, **Oasis State Park's Old Tyme Music Concert** features the Triple L Band of Portales. Bring lawn chairs for a free night of music under the stars ((575-356-5331).

Hiking and camping

Get down and dirty June 5-7 for **National Trails Day at Hyde Memorial** near Santa Fe by volunteering to help repair and maintain the interpretive trail. Volunteers will provide snacks; an afternoon cookout and Group Shelter No. 2 for overnight camping. Bring the family to the park for the **Great American Backyard Campout** with REI and the National Wildlife Federation June 25-26. Create lasting memories and promote happier, healthier kids by connecting with family and friends in the great outdoors (505-983-7175).

These are just a sampling of numerous events scheduled this year at New Mexico State Parks. All events are subject to change or cancellation; visitors are advised to call the park beforehand. Visit www.nmparks.com for additional information or call 888-NMPARKS.



Rockhound State Park





Photo: Ty Jackson

Elk biologist Stewart Liley with an elk calf about to be fitted with a radio transmitter on its ear.

Surviving

... continued from Page 1

“We have to be at the site of the kill right away to tell the cause of death, and whether the signs we find are from predation or scavenging.”

To gather that information, Department and Vermejo Park employees are in the field with telemetry equipment daily from June1 through July 15, the time most calves are born, and also the time when more than 50 percent of them in the Valle Vidal die. Monitoring frequency declines to three times a week from July 15 to Aug. 15, once a week from Aug. 15 to Sept. 1, and monthly thereafter.

“The calves are most vulnerable in the first 90 days of life” Liley said. “The first few weeks, they are in the hiding stage; they just lie still in the tall grass, only moving when the cow comes to nurse them. That’s when they are really vulnerable to predation.”

Calf-eating bears

After almost two years of research, Liley wasn’t surprised to learn that black bears are the greatest threat to newborn elk calves in the Valle Vidal. The area’s elk population of 3,000 to 5,000 has become an abundant and easy food source for an estimated 70-100 adult bears. Of the 2009 calf mortalities in which researchers were able to determine the cause, 50 percent of them were from bears. Coyotes were responsible for 20 percent of the mortalities, and cougars killed another 20 percent. One calf was taken by a golden eagle and another drowned in a creek. The results are not all in for 2010, but Liley expects the survival to be about the same or less than 2009.

“I knew that bears would be the biggest factor in the calf mortalities, but I didn’t think coyotes would be such a big player,” Liley said. “We even witnessed coyotes killing calves while we were out in the field.”

Hunters kill very few bears in the Valle Vidal. Under current hunting rules, only those who draw a coveted once-in-a-lifetime elk hunt



Photo: Stewart Liley

in the area are allowed to hunt bears in the area, and then only during their elk hunt. That, along with the area’s prime bear habitat and an ample supply of elk-calf protein, has allowed the Valle Vidal bear population to flourish.

Rick Winslow, large carnivore biologist for the Department, said based on recent bear population surveys in similar habitat just across the border in Colorado, the Valle Vidal bear population could be much higher than current estimates.

“It could be as much as double what our estimates are showing,” Winslow said. “And

that many bears definitely could have a big impact on the elk herd.” He said that while most black bears are 90 percent vegetarian, they will readily go after any easy source of protein when it’s available.

“Black bears have adapted over time to be much less carnivorous than grizzly bears or polar bears, but all bears’ stomachs are built to process raw meat, and black bears will go for what’s available,” Winslow said. “A black bear with access to a lot of elk calves in the spring and summer may not rely as much on acorns and chokecherries that are harder for them to assimilate.”

Recruitment worries

High calf mortality can have long-range impacts on an elk herd because it reduces recruitment of more cows into the herd. Liley worries that sustained high mortality among calves will increase the gradual downward population trends. Without more cows being recruited into the herd, there will be fewer calves born every year.

Recent fall aerial surveys have shown that the calf-to-cow ratio in the Valle Vidal area has fallen to only 20 calves for every 100 cows. In other parts of the state, such as the Gila and the Sacramento mountains, the ratio is 40 to 50 calves for every 100 cows.

“That is a main reason we are doing this study,” Liley said. “We wanted to look at why that ratio is so low. The population there was so high, but now we’re seeing a negative trend – there are not enough cows being replaced every year.”

Challenging field work

Capturing, monitoring and following up on mortality signals is difficult and time-consuming work. It puts researchers in the field in all kinds of weather in often rugged terrain. It also puts them in close company with predators known to be dangerous when guarding their prey.

“Last year we came up on bears still on a kill on two different occasions,” Liley said. “And I’ve been to mountain lion kills that were less than 24 hours old.”

Capturing elk calves, however, is not as difficult as it may seem.

“We utilize maternal behavior,” Liley said. “Elk are unique in that the cows are solitary when they are ready to calve, while they are calving

... continued on Page 15



Elk calves born in early June in the Valle Vidal Unit of the Carson National Forest of northern New Mexico have about a 30 percent chance of surviving their first year of life.

Photo: Stewart Liley





Photo: Don MacCarter

An elk calf mortality study conducted by the Department of Game and Fish in 2009 and 2010 indicated that coyotes were responsible for 20 percent of the elk calf deaths with known causes in the Valle Vidal Unit of the Carson National Forest.

... continued from Page 14

and immediately after calving. So when we're trying to find newborn calves, we just look for solitary cows. When we see one, we watch them for up to four hours and see where they go. Cows have to nurse every four hours or so, and they lead us right to the calf."

Even then, finding the calf is not easy.

"We'll have someone lock a spotting scope on the spot where the calf is bedded down and then give directions to someone looking for the calf," Liley said. "But the calves are so well hidden, so well camouflaged, that we've been within 10 meters of a calf and it still takes a half-hour to find it."

Once the calf is located, it is weighed, measured and has its teeth eruptions and hoof conditions examined to determine its age. If the calf is fewer than five days old, it won't run, so little physical restraint is needed. Eight minutes later, usually while its concerned mother watches from 200 to 300 yards, the calf is released.

"After we back off, a lot of times we'll see the cow and calf reunite," Liley said. "I don't think we've ever caused abandonment."

The study was expanded in 2009 to include health and pregnancy status checks of cow elk that were harvested on the Vermejo Park Ranch. Because hunting at the ranch is closely regulated, ranch employees and Department officers were able to harvest teeth and organs from all cow elk taken by hunters. The data from 300 cows harvested in 2009 and 400 in 2010 will be used to determine trends in body condition, time of conception, age and how many cows are becoming pregnant.

Spring bear hunt

The State Game Commission last year approved another tool Liley believes could be invaluable in his ongoing calf mortality research on the Valle Vidal – an experimental

spring bear hunting season. Removing some of the bears in the area will help determine just how big an impact bear predation is having on the population.

"This year we'll capture and monitor calves again after the spring bear hunt," he said. "The hunt also will help us better understand how bears actually impact the Valle Vidal elk herd. Judging from the number of bears we're seeing in the area compared to other parts of the state, we think the population is very high. Last year, it wasn't unusual to see as many as four bears in one day out there."

Funded entirely by sportsmen through license fees and federal excise taxes on hunting equipment, the elk calf study is one of many Department projects that benefit wildlife, hunters and nonhunting wildlife watchers. Of all the state's big-game species, the population of 70,000 to 90,000 elk contributes more to the economy than any other. About 30,000 elk hunting licenses are issued and public and private-land elk hunters spend more than \$68 million in the state each year.

For more information about the Department's conservation and research efforts, please visit www.wildlife.state.nm.us.



Photo: Don MacCarter

Cow elk often leave their calves to hide in grassy meadows for hours at a time during the first few weeks of their lives. The cows return to nurse their calves about every four hours.

Governor names 4 new members to Commission

Governor Susana Martinez appointed four new members to the State Game Commission in March. The new members are Bill Montoya of Alto, Jerry Maracchini of Rio Rancho, Robert Hoffman of Las Cruces, and Scott Bidegain of Tucumcari.

The four new members will join current Commission Chairman Jim McClintic of Albuquerque, Tom Arvas of Albuquerque and Thomas "Dick" Salopek of Las Cruces.

- **Bill Montoya** worked for the Department for 28 years, overseeing conservation and game management before taking over the director's position. He is also the former president of the Western Association of Fish and Wildlife Agencies. He holds a degree in wildlife management from New Mexico State University. His term expires Dec. 31, 2013.
- **Jerry Maracchini** is a former Department director who worked for the agency for 27 years, holding numerous positions in Santa Fe and throughout the state. He is a retired Marine Corps reservist and graduated with a degree in wildlife science from New Mexico State University. His term expires Dec. 31, 2011.
- **Robert Hoffman** is a retired professor of chemistry at New Mexico State University whose research focused largely on physical organic chemistry. He is the secretary of New Mexico Quail, Inc., and is active in numerous other sportsmen groups in New Mexico. He graduated from Western Reserve University with an A.B. in Chemistry and earned his Ph.D in Organic Chemistry from Case Western Reserve University. His term expires Dec. 31, 2011.
- **Scott Bidegain** works at T4 Cattle Company, a family-owned and operated cattle ranch in Tucumcari. He also serves on the New Mexico Cattle Growers Association Board of Directors. Bidegain holds a Bachelor of Business in Accounting and a Bachelor of Arts in General Studies from West Texas A&M University. His term expires Dec. 31, 2014.
- **Jim McClintic** is a New Mexico native, an avid hunter and angler, and a lifetime member of New Mexico Trout. He is a licensed building contractor and developer, and served on the Economic Development Commission during Governor Garrey Carruthers' administration. He also was on Albuquerque Mayor Martin Chavez's transition team and served as chairman of the Albuquerque Municipal Development Sustainable Enhancement Team. His term expires Dec. 31, 2014.
- **Tom Arvas** of Albuquerque is a practicing optometrist. Arvas has a long history with the Game Commission. He served under four administrations – Governors Toney Anaya, Garrey Carruthers, Bruce King and Bill Richardson. He is President of the Amateur Trapshooting Association. Arvas also serves on the Rocky Mountain Elk Foundation, Ducks Unlimited and the National Rifle Association Board of Directors. He is the former president of the New Mexico Optometric Association. His term ends December 31, 2011.
- **Dick Salopek** of Las Cruces is a third-generation pecan farmer in the Mesilla Valley. He is an avid hunter, bowhunter and outdoorsman. He is co-owner of Tom Salopek Farms, Western Blend, Salopek 4-MP and Robledo Pecan Sorting. He currently serves on the Board of Directors of the Dona Ana County Planning & Zoning Commission, the New Mexico Pecan Grower's Association, and is treasurer of the Dona Ana County Farm Bureau. Dick has been on the Board of Councilors at Citizens Bank. He is also a member of the Rocky Mountain Elk Foundation and the National Rifle Association. He holds a B.A. in Agronomy & Soil Science from New Mexico State University. His term ends December 31, 2013.





Eggs to fry



Photo: John Wright

Fisheries biologist Rick Castell explains to students some of the basics of raising trout.

Students help trout hatch and grow in classrooms

By Colleen Welch

As temperatures begin to warm and the days get longer, trout eggs that spent the winter tucked away in their beds in rivers and streams begin to hatch. You might be surprised to learn there are other places where trout have spent the winter in New Mexico.

Across the state, students have been busy raising trout from eggs to 3-inch long fingerlings – right in their classrooms. Through a national Trout Unlimited program called Trout in the Classroom, students learn all about caring for eggs and baby fish. Later this spring, the students will help release the small trout into a stream or lake.

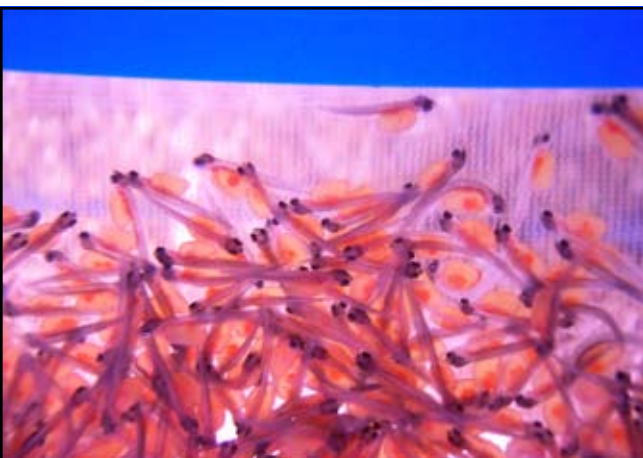
“Our goal is to get kids outdoors, and the instrument to do that is fishing,” says John Wright, with the Truchas Chapter of Trout Unlimited. This year, Wright and the chapter’s Youth Education Program have brought the program to six schools.

The Department of Game and Fish provides schools with some equipment, the eggs and instructions. Teachers get more support from Parent Teacher Associations and from grants that help buy equipment. So far at least 15 schools have participated in the New Mexico program since it began in 2006.

“It’s neat because it brings the outdoors into the classroom,” says Rick Castell, the Department’s fisheries biologist for the Northwest Area. “The kids take ownership of the fish, and after having seen them develop from eggs to three-inch fingerlings, they get the satisfaction of getting to release them.”

Students and teachers work at many special jobs every day to take care of the fertilized eggs and eventually the tiny baby trout. The fish are kept in fish tanks with special equipment that includes chillers to keep the water just the right temperature. Just as in a natural, aquatic habitat, the trout need clean water, food, shelter and space -- the same four needs that all animals share, even human beings.

The tank becomes the shelter and space for the tiny fish as they develop from eggs to fry and finally, fingerlings. First, the eggs are gently placed into a hatching basket or tray in a single layer. Students watch daily and remove any dead eggs or eggs with a white fungus. Students record dead eggs in their



daily science journals or record sheets.

The first stage that hatches from the egg or embryo is called an alevin (pronounced al-a-vin) or sac-fry because it carries some of the egg yolk sac that gives the alevin food. The alevins swim out of the hatching basket to the spaces in the bottom of the tank. They remain there until they use up all of their yolk sacs.

After about a week, the baby trout are called fry, and they need special food that has all of the vitamins that they need to be healthy and to continue growing. After about three months, the small fry are about one inch long. When the fish grow to three to five inches long, they are called fingerlings. Students actively feed and care for the trout. They need to change the water once a week, do special chemical tests of the water, vacuum the gravel and clean the chillers’ air filters.

Students write in their trout journals while they learn about trout anatomy (body), senses and the fish life cycle. Students also learn about natural fish habitats, healthy streams and trout survival.

Students in the Trout in the Classroom program help raise trout and watch them develop from eggs, left, to alevins, bottom left, to fry, below. When the baby fish grow to about three inches long, students help release them into a lake or stream.

Photos: John Wright, left and below; Capital High School students, below left.



Once the trout have grown into healthy fingerlings, students get ready for a field trip to release their raised trout into a nearby lake or stream. Biologists with the Department’s Fisheries Division help students release the trout – usually in shallow pools in areas with shade or plant cover at different spots along the stream.

To learn more about the national Trout in the Classroom program, visit www.troutintheclassroom.org. For more about the New Mexico program, contact John Wright at jwwtwe@gmail.com, or the Department’s Aquatic Resources Education Program at (505) 476-8119 or 476-8095. You can also visit the Kids Blog at www.tcyepblog.blogspot.com or the Truchas Chapter of Trout Unlimited at www.truchas-tu.org.

Colleen Welch is co-coordinator for conservation education and Project WILD for the Department of Game and Fish. She can be reached at (505) 476-8119 or colleen.welch@state.nm.us.

