



PHOTO: RICHARD WIDENMANN

Cave swallows

Banding project sheds light on cave dwellers.

Please see pages 4-5.

New Mexico wildlife

www.wildlife.state.nm.us

VOL. 51, NO. 1 ■ SPRING 2006

NATIVE WATERS

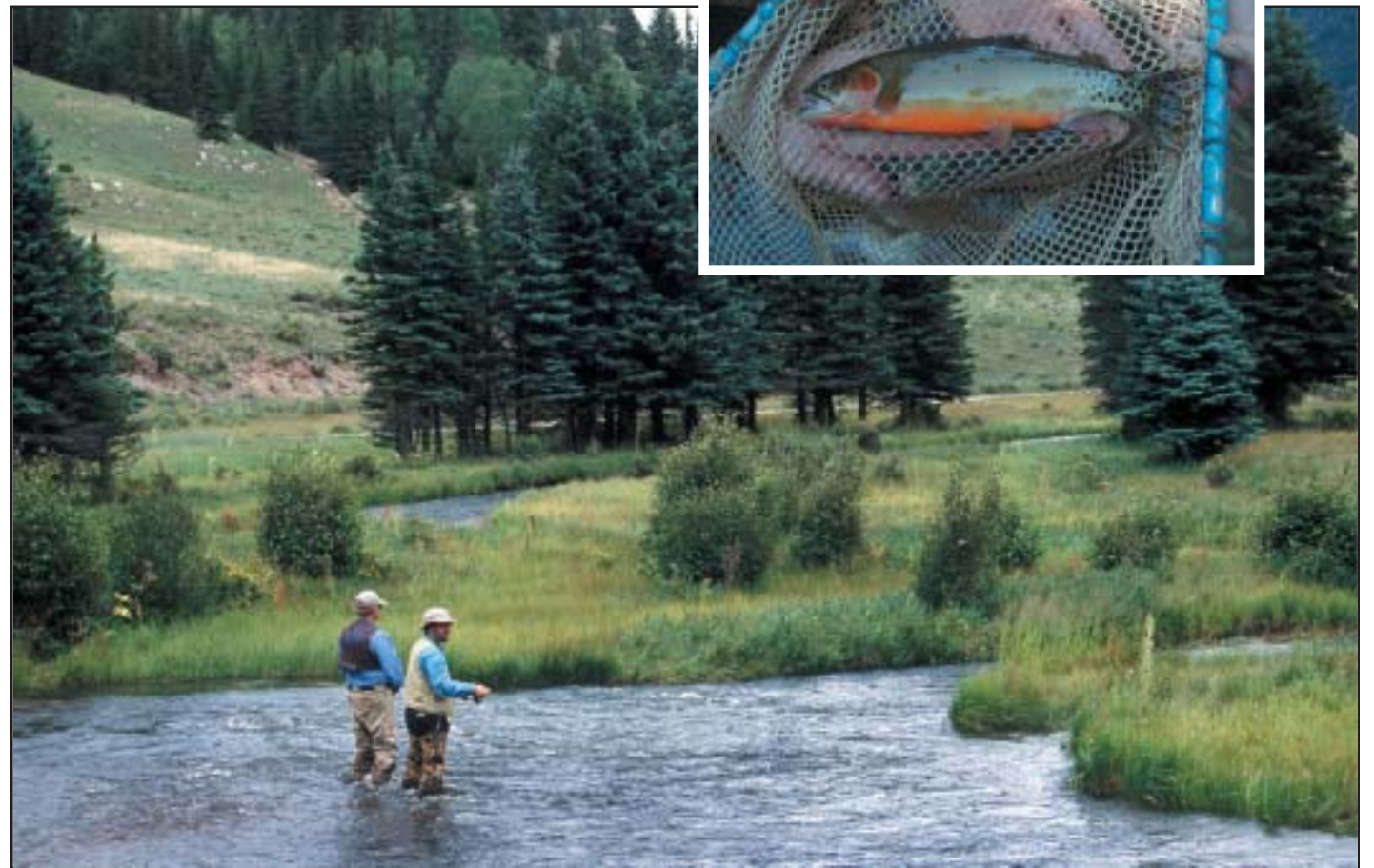
Restoration ensures bright future for Gila, Rio Grande cutthroat trout

BY DAN WILLIAMS

Their iridescent bodies match their surroundings with stunning hues of green, gold, copper and orange. Like O'Keefe paintings, they are prized by everyone who sees them, but perhaps most appreciated by other natives.

Rio Grande cutthroat trout arguably are among the most beautiful fish in the world.

PHOTO: YVETTE PAROZ



Anglers enjoy fishing for New Mexico's state fish, the Rio Grande cutthroat trout, in some of the state's most scenic settings, including the Valle Vidal's Rio Costilla.

PHOTO: LANCE CHERRY

Whether we are catching them, eating them or just watching them dart about in a mountain stream, we love our native trout. They are a heritage that evolved over thousands of years – a precious resource we are committed to nourish and protect.

"New Mexico is lucky to have two unique fish, the Gila and the Rio Grande cutthroat trout," said Bill Schudlich, chairman of the New Mexico Council of Trout Unlimited. "They are found only in New Mexico and Colorado, and we need to do everything we can to restore them to as much of their former ranges as possible." Trout Unlimited is among many organizations, government agencies and individuals who support ongoing efforts to restore pure strains of the native fish to their historic habitats. The objective is get the trout off – and keep them off – state and federal endangered species lists. And lately, there has been plenty of progress.

"We like to think we're getting pretty close to being able to offer some limited angling opportunities for Gila trout," said David Propst, a New Mexico Department of Game and Fish biologist and leader of the Gila Trout Recovery Team. It currently is illegal to fish for Gila trout, a federally endangered species since 1966. Propst hopes successful efforts to restore the trout to more of its historic range will soon lead to a downlisting of the fish to "threatened" status. A proposal for downlisting by the U.S. Fish and Wildlife Service was added to the Federal Register in May 2005, and a decision could come as soon as this summer. A decision to downlist the fish to "threatened" would leave it up to the Department of Game and Fish to decide when, where and under what conditions angling would be allowed.

A similar project for New Mexico's state fish, the Rio Grande cutthroat trout, is just getting

...continued on page 14

IN THIS ISSUE:

- 4. **Swallow secrets:**
Volunteers add to knowledge about bird's life cycles, migration.
- 6. **Luck of the draw:**
Learn how to increase your odds in New Mexico's license drawing process.
- 7. **Making Tracks, Part 10:**
Department puts more effort into conserving non-game wildlife species.
- 11. **Old Refuge, new park:**
Mesilla Valley bosque is site of newest state park.
- 12. **Gila River bass:**
Feisty smallmouth bass challenge anglers in southwest New Mexico.

departments

2. **game&fishnews**

- Wildlife area gets guzzler
- New Game Commission chairman
- Youth pheasant hunting
- Hunter Education volunteers
- Oryx "Hunt of a Lifetime"

16. **kidtracks**

BIG BLUE:
Learn about North America's largest heron.

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



Published by
The New Mexico Department
of Game and Fish



The drinks are on us

Habitat stamps, Wild Turkey Federation bring water source to Bluebird Wildlife Area

BY DALE HALL

The New Mexico Department of Game and Fish's Habitat Stamp Program routinely teams up with sporting groups to fund habitat improvement projects on U.S. Forest Service and Bureau of Land Management property. Last summer, those efforts took a new twist when the Albuquerque Chapter of the National Wild Turkey Federation joined the program and helped install a water development on a Game Department property that adjoins federal land.

All they needed was \$6,000 for materials and some hard labor to build a permanent water source. Half the funding was secured through the Habitat Stamp Program, a \$5 fee collected from hunters and anglers who use federal lands. Because turkey frequented the area, Anderson sought the rest of the funding from the Wild Turkey Federation, and received a positive response. It turned out that Turkey Federation member Rick Servoss was well aware of the Bluebird property,



Department of Game and Fish construction crewmembers, from left, Jon Chafins, Bill Taylor and Juan Chavez did the hard part of installing a guzzler that captures rain and snow for use by wildlife on the Bluebird Wildlife Management Area.

PHOTO: DALE HALL

The project took root when Department Conservation Services Assistant Chief Mike Gustin noticed a jewel of property in the Jemez Mountains east of Cuba that was in need of improvement. The 160-acre tract, known as the Bluebird Wildlife Management Area, was acquired by the agency in 1953 to provide habitat for deer, elk, bear and turkeys. The area is celebrated for its large, lush meadow that appears out of a forest of pine trees and oak brush. In wet years, snowmelt and a small spring nourish much of the meadow, which in turn attracts the abundant game, hunters and wildlife watchers.

Unfortunately, in dry years, wildlife is forced from the area to seek water, a condition Gustin and Department Habitat Specialist Steve Anderson saw as an opportunity.

(below)
A "guzzler" collects and stores rain and snow for use by wildlife.

PHOTO: RANDY ISLER



having hunted there in the past. Servoss recounted a story when he and his buddy were hunting in the Bluebird area when they successfully called in, not a turkey, but to their surprise, a bear. Needless to say, Servoss, along with fellow member Dr. Richard Becker and others enthusiastically supported the project with "Guzzlers for Gobblers" funds.

The Turkey Federation purchased a "guzzler," which catches and holds rain and snow for use by wildlife. Carson National Forest personnel helped deliver the guzzler and the Department's construction crew converged to do the work.

While driving into the site, Game and Fish construction crew member Bill Taylor saw a huge buck and fell in love with the area right away. "This is why I joined the Department, to do this kind of work," he said.

The crew made short work of the project and Turkey Federation volunteers erected a sign commemorating the achievement. Noting that the water will be accessible to all types of critters, Becker said, "This is exactly the type of project that sportsmen and the agency ought to partnering in - to benefit all wildlife. What's next?" ■

DALE HALL is manager of the New Mexico Habitat Stamp Program for the New Mexico Department of Game and Fish.

Special designation may help protect Valle Vidal from oil and gas drilling

SANTA FE — Streams and lakes in northern New Mexico's Valle Vidal are better protected from further degradation in water quality with the recent designation as Outstanding National Resource Waters by the state Water Quality Control Commission.

The Commission voted 11-1 to approve the Valle Vidal nomination by the New Mexico Department of Game and Fish, Environment Department and Energy, Minerals and Natural Resources Department. The Outstanding National Resource Waters designation is a classification allowed under the federal Clean Water Act. It does not prohibit oil and gas drilling, but it does allow the state to impose stringent restrictions and requirements on land uses that affect surface water quality. The designation will not affect existing uses of the land, which include hunting, fishing, other recreational activities and some livestock grazing.

Proponents of the designation included Governor Bill Richardson, state agencies, the Coalition for the Valle Vidal and others opposed to drilling for natural gas in the Valle Vidal. El Paso Corp. has asked the U.S. Forest Service to allow drilling for coal-bed methane in portions of the 100,000-acre Valle Vidal area of the Carson National Forest east of Red River. Drilling opponents argue that activities associated with gas drilling will adversely affect area surface waters. Governor Richardson has said the ONRW designation is the first step in the state's battle to protect the Valle Vidal from natural gas drilling.

Valle Vidal streams, including Rio Costilla, Comanche, Ponil and McCrystal creeks, are home to New Mexico's state fish, the Rio Grande cutthroat trout. Surrounding high mountain meadows, open grasslands and mountains support the state's largest elk herd and many other wildlife species. ■

Game Commission elects new chairman

CARLSBAD — The New Mexico Game Commission elected Hobbs businessman Leo Sims II as its new chairman during its annual officer elections. Sims is a partner in Sims and Kennann, which deals in oil and gas, ranching and environmental issues. He takes over the position held by Guy Riordan of Albuquerque, who will remain on the Commission as a regular voting member.

Tom Arvas of Albuquerque was re-elected as Commission vice chairman. Other Commission members are M.H. "Dutch" Salmon of Silver City, Alfredo Montoya of Alcalde, Peter Pino of Zia Pueblo, and David Henderson of Santa Fe.

Commission meeting schedules, agendas and other information are available on the Department Web site, www.wildlife.state.nm.us. ■



Leo Sims II, the newly elected chairman of the State Game Commission

NEW MEXICO DEPARTMENT OF GAME AND FISH

Dr. Bruce Thompson
Director

Tod Stevenson
Deputy Director

Luke Shelby
Assistant Director for Resources

Patrick Block
Assistant Director for Support Services

Mike Sloane
Fisheries

R. J. Kirkpatrick
Wildlife Management

Dan Brooks
Law Enforcement

Martin Frentzel
Public Information and Outreach

Lisa Kirkpatrick
Conservation Services

Robert McGee
Information Services

AREA SUPERVISORS

Luis Rios / Las Cruces

Lief Ahlm / Raton

Roy Hayes / Roswell

Brian Gleadle / Albuquerque

STATE GAME COMMISSION

Leo Sims, Chairman
Hobbs

Dr. Tom Arvas, Vice-Chairman
Albuquerque

Alfredo Montoya
Alcalde

David Henderson
Santa Fe

M. H. "Dutch" Salmon
Silver City

Peter Pino
Zia Pueblo

Guy Riordan
Albuquerque

Providing New Mexico and its wildlife

Year-round
Excellent
Services



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

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

Printed by Hillside Printinge, an R. R. Donnelley Company, Hillside, IL, under contract with the State of New Mexico. Printed in the United States.

Volume 51, Number 1

Lance Cherry
Chief of Publications

Dan J. Williams
Editor

The Studio/Janelle Harden
Design and Production

Letters may be sent to:
NEW MEXICO WILDLIFE

P.O. Box 25112

Santa Fe, NM 87504-5112

Telephone (505) 476-8004



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



PHEASANTS PHEASANTS PHEASANTS

First annual Casa Colorado Youth Pheasant Hunt is a big success

BY ROSS MORGAN

It's 4 a.m. and you didn't get any sleep last night... because you were so excited about the big hunt the next day. Every hunter – no matter his or her age – has experienced one of these nights.

In early December, 15 young sportsmen felt that excitement, lost some sleep, and still had energy to spare as they enjoyed a special day of pheasant hunting on the Casa Colorado Wildlife Management Area south of Belen. It was the first annual Casa Colorado Youth Pheasant Hunt, an effort by the Department of Game and Fish to create more youth hunting opportunities and continue the family hunting tradition.

Soon after sunrise, the words "hen!" or "rooster!" cracked the morning chill as the youths yelled out to let the other hunters in their group know if a flushed pheasant was legal to shoot. Hunters must know the difference between the males and the females, because only male or "rooster" pheasants are allowed to be taken during the hunts.

"This is a good learning experience for the kids. It teaches them to identify their target before they shoot," said Chris Chadwick, Albuquerque District Wildlife Supervisor.

"It is always a rewarding experience to see young hunters take the knowledge and skills learned from their hunter education instructors in the classroom and apply it in the field with their friends and



These young hunters found plenty of birds during the first annual Casa Colorado Youth Pheasant Hunt.

PHOTO: BRIAN GLEADLE

family," said Jennifer Morgan, assistant hunter education coordinator for the Department of Game and Fish.

Each hunter demonstrated proper sportsmanship, excellent zones-of-fire and followed the four basic rules of firearms safety.

Tom Gentry, whose son, Sam, was one of the lucky hunters to draw for the hunt, said he was impressed with the preparation that went into the hunt, along with the help from Department of Game and Fish staff.

"It was remarkable to see all of the Game and Fish personnel that took time to assist the kids," Gentry said. "You created an event that will always be a highlight of our hunting and family memories!"

The hunt was made possible with the help of sponsors such as Larry Miller Hyundai, Charlie's Sporting Goods, Fuzzy's Pheasant Farm, Birds of the Bosque Taxidermy, Old Mill & Valencia Mercantile, Belen Wal-Mart, First State Bank in Belen, Craig Tire, Sportsman's Warehouse, and Big D's Electric. On top of the wild birds that reside on the Wildlife Area, 100 pheasants were released on the area

for the young sportsmen. Thanks to the sponsors, many gifts and prizes also were available.

Because of the popularity of pheasant hunting, the Department of Game and Fish offers two youth hunts. In southeastern New Mexico, the staff at the Seven Rivers Wildlife Management Area and other Department employees have an annual hunt. Like the Casa Colorado hunt, participants are selected through a special drawing that occurs in late November. There are 40 permits available for the Seven Rivers hunt and 15 permits available for the Casa Colorado hunt. For more information on these two hunts, please look in the Small Game and Waterfowl Rules and Information Booklet that is published by the Department. The booklet is available at license vendors, Game Department offices in Santa Fe, Albuquerque, Raton, Las Cruces and Roswell, and can be viewed and downloaded from the Department Web site, www.wildlife.state.nm.us. ■

ROSS MORGAN is the Northwest Area Game Manager for the Department of Game and Fish.

Young hunters need instructors

BY MARK BIRKHAUSER

Every Hunter Education Instructor has a reason for becoming a teacher. For some, it was a personal situation involving a hunting accident or a near accident. Others became instructors because they like working with youth or want to ensure that the sport of hunting is done safely and ethically. They all share one motivation, however: to give something back to the sport they love.

The volunteers who teach hunter education classes in New Mexico are men and women who give their valuable time to ensure that youth are taught firearms safety, wildlife conservation and hunting ethics. Whether it is a class in Albuquerque, Jal or Tierra Amarilla, volunteer hunter education instructors find it rewarding to pass on their knowledge and promote the sport.

The Hunter Education Program is always looking for more instructors. If you are interested, the process is easy. All prospective instructors must fill out an application form, which can be found in the back of all Hunter Education Manuals, or can be obtained from the Department of Game and Fish Web site



Charlie Anderson, a volunteer hunter education instructor, showed young shooters how to handle a muzzleloader at last year's New Mexico Outdoor Expo.

PHOTO: MARK BIRKHAUSER

(www.wildlife.state.nm.us) or from any Department office. Hunter education instructors must be at least 21 years old. Teaching experience is highly desirable, but not required. Other valuable experience includes hunting, gunsmithing, public speaking, survival or wildlife conservation.

Instructors teach within their local communities and establish a rapport with the youth. In most communities, several instructors will group together to form a teaching team. As part of a team, an instructor only needs to be willing to assist in order to influence young hunters.

Take the time today to fill out an application and become part of the Hunter Education Program team. Your time is valuable; use it to ensure a future for hunting. ■

MARK BIRKHAUSER is the Hunter Education Coordinator for the New Mexico Department of Game and Fish. For more information about becoming an instructor, contact him at (505) 222-4733, or Assistant Coordinator Jennifer Morgan at (505) 222-4722.

17-year-old with leukemia enjoys oryx hunt of a lifetime

A 17-year-old from Kentucky has an oryx trophy on his wall along with some fond memories of New Mexico, thanks to a new law, a generous hunter and the Hunt of a Lifetime Foundation, which helps provide hunting experiences for children and young adults with life-threatening diseases.

Wesley Beach, who has leukemia, was able to go on the Nov. 19 oryx hunt thanks to a donation by Richard Wakefield of Los Alamos, a successful

applicant in the drawing for a once-in-a-lifetime hunt at White Sands Missile Range. The license transfer was made possible by legislation signed by Governor Bill Richardson allowing the transfer of licenses to Hunt of a Lifetime and similar wish-granting organizations.

"This was really a fantastic experience," said Beach, who was accompanied on the hunt by his father, Myron Beach, and representatives from the New Mexico

Department of Game and Fish and White Sands Missile Range. "People where I come from have never heard of an oryx. This will be the biggest thing they've ever seen."

Wesley Beach's hunt was the 230th arranged by Hunt of a Lifetime since Pennsylvania school bus driver Tina Pattison created the foundation in August 1999 following her son Matthew's "hunt of a lifetime" for moose in Canada. Matthew, who died shortly after the hunt, had been denied his wish by the Make-A-Wish Foundation, at the time the only wish-granting organization for children with life-threatening diseases, because the organization does not grant wishes associated with hunting activities.

"Nothing in the world could have made me more happy than to see Wesley having the good time he had in New Mexico," Myron Beach said after the hunt. "He has a lot of worries and pain with his illness, but they didn't even cross his mind on the hunt." ■

Wesley Beach and his father, Myron Beach, posed at sunrise with Wesley's bull oryx, which had horns measuring 32 inches.

PHOTO: DAN WILLIAMS



Swallow secrets

Volunteer banding project sheds light on elusive cave dwellers

BY STEVE WEST
PHOTOS: RICHARD WIDENMANN

Of the more than 500 species of birds that have been documented in New Mexico, the cave swallow has one of the most elusive and fascinating stories of survival and migration.

Cave swallows were not known to exist in New Mexico until 1952, when Richard Prasil, a naturalist at Carlsbad Caverns National Park, discovered a colony of 40 birds in Goat Cave. Over the next 13 years, the birds were found in additional caves, all in the same relatively isolated canyon. Another discovery, or re-discovery, of two cave swallows collected and misidentified as more common cliff swallows in 1930 confirmed that the birds had been primarily nesting in a few caves in Slaughter Canyon and occasionally feeding over Rattlesnake Springs, a disjunct unit of the park. The birds' presence in New Mexico wasn't noticed on a large scale, however, until 1966, when three pairs of cave swallows appeared at Carlsbad Cavern.



Cave swallows are not injured during the trapping and banding process.

Cave swallows had become a priority species for visiting birders, as it was one of the most restricted birds in the United States in terms of range. Other than at Rattlesnake Springs and at difficult-to-reach caves in Slaughter Canyon, the only other places they could be found before 1966 were on private lands in the Edwards Plateau of Texas. When the birds were found at Carlsbad Cavern, the species suddenly was easier to find. Birders often would visit the cave entrance to add the bird to their life lists.

Cave swallow numbers at Carlsbad Cavern gradually increased, and in 1980 a project was started to learn more about the basic biology of the species. Volunteers started banding birds with the hope of a recovery on their wintering range, and to get a picture of what impact they might be having on the cave and cave fauna. Project participants also hoped to learn where cave swallows spent the winters. At that time, the birds were one of only a few North American species for which the wintering range was unknown. The first clue to that puzzle came from a leg band discovered by a Minnesota "snowbird" vacationing in San Patricio, Mexico.

El Salvador connection

H.L. Walther, a duck hunter, knew what to do with the band on the dead swallow he found on his San Patricio porch in January 1992. He reported it to the U. S. Geological Survey's Bird Banding Laboratory, which passed the information on to the original bander of the bird. That band turned out to be the first (and only) band recovery away from the cave swallow's general nesting area in West Texas and New Mexico. Later discoveries of wintering birds along coastal El Salvador indicated that they primarily winter along the coast from Jalisco to at least El Salvador, and probably farther south. Since the mid 1990s, cave swallows have started wintering in small numbers in central and southern Texas, but the overwhelming majority are believed to head to coastal Middle America.

Since 1980, 17,000 banded cave swallows have helped answer other questions about the species, including information about the production of young, age and sex ratios, productivity in wet versus dry years, range of weight and size. The oldest bird found in the study was 11 years old, although most recaptured birds range from three to five years old.

While about a dozen sites in Carlsbad Caverns National Park have nesting cave swallows, Carlsbad Cavern was the best spot to capture and band the birds. The cavern provides easy access for trapping swallows, and keeps them warm and protected on cold evenings and during bad weather. Birds also have been banded at caves elsewhere in the park, on adjacent US Forest Service land, at a few highway culverts south of Whites City, and at Swallow Sinkhole in the Glass Mountains of Brewster County, Texas.

Capturing information

Banding continues to this day at Carlsbad Cavern. The process involves stretching a thin, dark net called a mist net between metal poles and holding the net upright until a few birds become entangled. The net is then lowered and the birds are removed, processed, and released. Numbers of birds captured in one evening have ranged from 1 to 190, with an average of about 50 per trip.

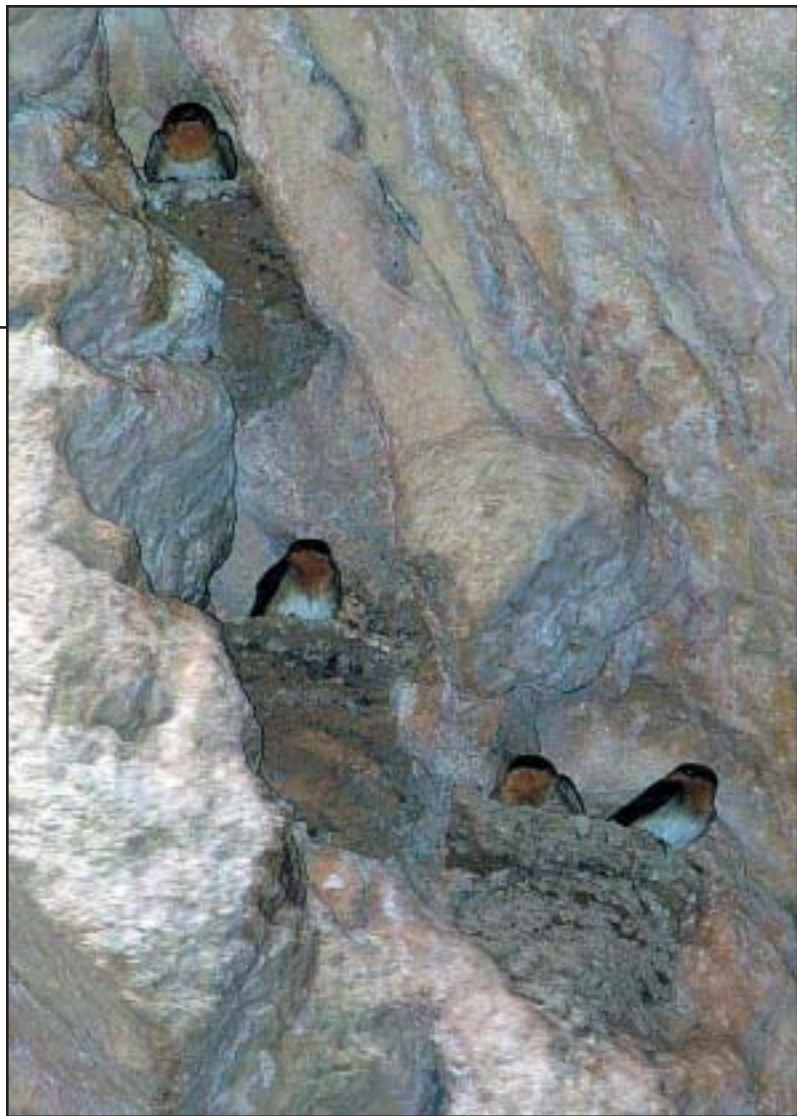
Data taken from the birds varies depending on the time of year, but all birds are measured (left wing, right wing, tail length) and weighed. Various observations are made at other times of the year, including the presence of a brood patch, which indicates brooding females. After the first birds fledge, notes are made on which individuals were born that year or in previous years. The presence of ectoparasites, plumage abnormalities, whether birds are carrying mud for nest repair, and whether they are carrying food for nestlings are just some of the data that are noted.

Of almost 17,000 cave swallows banded since 1980, more than 13,000 were trapped more than once. Although many banded birds are never seen again, some have been trapped more than a dozen times, illustrating the benign nature of bird banding (they are not injured in the process) and the fidelity of the birds to the site. The birds usually arrive the first week of February and leave by the end of October or the first week of November. Birds have been seen in all months except December, with the earliest date being Jan. 2 and the latest Nov. 13.

Swallows banded at Carlsbad Cavern from May through July obviously are nesting there. Birds banded at other sites during the same period frequently show up at Carlsbad Cavern before or after breeding, but are never found there during the breeding months. While apparently showing a great deal of site fidelity to the cave while nesting, the swallows are prone to wandering. The main breeding areas in New Mexico are the Guadalupe Mountains and under a few irrigation bridges in Dona Ana County, but birds occasionally



Cave swallows build and occupy nests on the walls of Carlsbad Cavern from May through July.



have been seen in the Rio Grande Valley as far north as Percha Dam State Park. The birds are uncommon in other areas of the New Mexico, but as their populations increase, it would not be unusual to find the wanderers almost anywhere in the state.

Volunteers make it happen

Since 1980, volunteers have made 585 banding trips to Carlsbad Cavern. Approximately 4,000 people have assisted in activities such as data collection, carrying equipment, holding banding poles or birds, or serving as lookouts to make sure the nets are down before the evening outflight of the Brazilian freetail bat colony. Volunteers have included the researchers, National Park Service personnel, students and adults from area communities, and sometimes, park visitors who volunteer on the spot. People “drafted” in this manner often remark that the activity was the highlight of their trip and vow to return, which they frequently do. The volunteers have come from 39 states and 15 countries, giving far-flung visitors another taste of the Chihuahuan Desert and a chance to contribute to some basic research.

“The cave swallow banding project has added greatly to our knowledge of the species,” said Sandy Williams, an ornithologist with the New Mexico Department of Game and Fish. “And it is significant because it has brought many people in the field to participate in a long-term science project.”

The cave swallow project also has benefited many students over the years – often as a hands-on science class topic. Some students have gathered data to use in regional and state science fair projects, and many have gone on to major in science in college and on to careers in science or resource protection and management.

What does the future hold for the cave swallow project? There is always more to learn about a species, especially one that was largely a mystery until the 1980s. Researchers are still seeking answers to questions about the birds’ molt pattern, maximum age and movements. More banding will increase knowledge about the swallows’ winter range and help identify areas of critical importance to the species. The project may be a quarter-century old, but there is still much to learn. ■

STEVE WEST of Carlsbad is a teacher, birder, leader of the cave swallow project and recipient of the 2005 Outstanding Biology Teacher of the Year Award for New Mexico.



(far left) Everyone is welcome to participate during cave swallow banding activities at Carlsbad Caverns National Park.

(left) Steve West, a Carlsbad science teacher, has been working with volunteers on a cave swallow banding project since 1980.

Cave swallow (*Petrochelidon fulva*)

The cave swallow can be told from all swallows except the cliff swallow by its pale rump. Cave swallows have darker foreheads and paler throats than the cliff swallow. The cave swallow’s tail is more squared at the tip than most other swallows.

Identification:

- Tiny bill
- Pale orange rump and throat
- Blackish cap and upperparts
- Tip of tail squared
- Most often seen flying
- Will nest communally in mud nests under bridges, in caves, etc



Playing the odds

How to maximize your chances in New Mexico's big game license drawings

BY CHAD NELSON

EVERY YEAR, THE NEW MEXICO DEPARTMENT OF GAME AND FISH receives complaints from disgruntled hunters who've gone yet another year without drawing a tag for their species of choice. The competition can be fierce for a limited number of licenses or permits, especially in prime areas. There's no silver bullet to guarantee success in the drawing, but the following tips can help you increase your chances.

Know how the draw works

It is important to understand that New Mexico's big game drawings are subject to a quota system for most species (except oryx, ibex and bighorn sheep). In accordance with state law, the draw attempts to distribute 78 percent of licenses for each hunt to New Mexico residents, 12 percent to nonresidents who have contracted with an outfitter, and 10 percent to nonresidents who have not contracted with an outfitter. New Mexico does not grant preference to applicants who were unsuccessful in previous drawings.

A computer program draws applications in random order. When an application is drawn, the system attempts to distribute licenses for the first hunt choice, subject to the quotas described above. If the drawing pool of the first hunt choice is already filled, the computer will try to assign the second choice to that application and then the third choice. If the licenses have been distributed, or there are not enough to fulfill the application (for example, if there are four non-guided nonresident applicants and only three licenses remaining to fill the 10 percent quota), the system will not issue a license(s) and will move on to the next application. When residents and nonresidents apply together, there must be licenses remaining in both quota pools for the application to be successful.

Do your homework

Consult the drawing odds reports on the New Mexico Game and Fish Web site. Scout different areas and consult maps to find out how much public land is accessible within the units you want to hunt. Talk to other hunters. Call the local conservation officer well in advance of applying to check the current status of your unit. Consider how hard you're willing to work to harvest an animal. Most officers will tell you the farther you get from your truck, the better your chances. If you're willing to put forth the effort, some areas you might not have considered can offer rewarding hunts.

Expand your horizons

We can't all be lucky enough to draw a bull elk hunt in the Valle Vidal or Unit 16A or 16D, or a deer hunt in Unit 2. Most of the units that contain prime habitat for any species are very difficult to draw because numerous hunters apply for those areas. There is no harm in submitting a highly desirable unit as your first choice, but if all three of your choices are in prime units, your chances won't be very good. Consider entering a less competitive unit for your second, or at least your third choice. It doesn't hurt to be willing to travel for your hunt, either. The words "too far away" shouldn't be in your vocabulary if you truly want to hunt big game in New Mexico.

Think about different sporting arms

The majority of hunters prefer to hunt with high-powered rifles. Obviously the range of a rifle can make for a much easier hunt than a bow hunt where you need to be within 35 yards or so to have any hope of hitting your target. It also means there will be many more applicants for any legal sporting arm (rifle) hunts, than for muzzle-loader- or bow-only hunts. Today's muzzleloaders can shoot accurately to well over 100 yards. The bow seasons for elk generally coincide with the rut, and the muzzleloader seasons are shortly thereafter, so there's a possibility of calling elk into range that doesn't exist during most of the rifle seasons. It will be tougher to harvest an animal with a bow or muzzleloader, but you're more likely to get to go hunting if you apply.

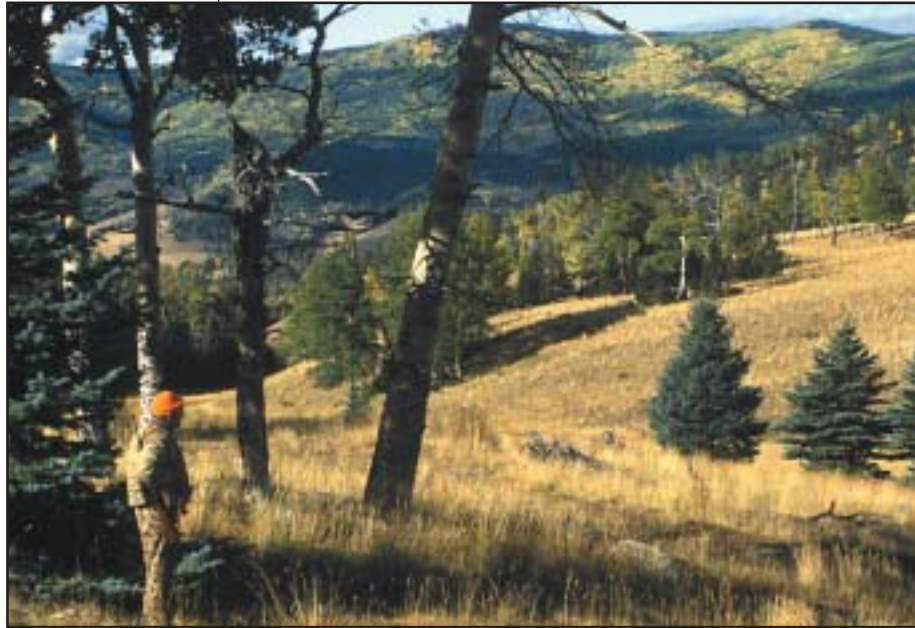
Cow vs. bull for elk

If you truly enjoy the experience of hunting, or you're more concerned with putting food on your family's table than a mount over your fireplace, think about applying for a cow elk hunt. The odds are far better of drawing an antlerless elk hunt than a bull hunt. A lot of hunters are primarily interested in that elusive Boone and Crockett class bull, so antlerless hunts generally receive way fewer applications than bull hunts. If you truly want to go elk hunting, think about using one or more of your choices for a cow hunt.

The fourth-choice option

For deer and elk, you have the option of submitting a fourth choice. The Department of Game and Fish consistently has stressed that you must be willing to accept any hunt in the quadrant of the state you enter for these species. Keep in mind that these are the hunts that received fewer applications than others, and there's a reason for that. You could end up hunting an area with scattered populations, or the unit might be very rugged terrain. Either way, you should be prepared for a tough hunt. If you really want to hunt and don't care where or what the bag limit is (for elk), the fourth choice might be a good option. ■

CHAD NELSON is a public information specialist for the Department of Game and Fish.



The season's first rifle hunt for elk in northern New Mexico's Valle Vidal is one of the state's most coveted hunts. It's also one of the toughest licenses to acquire through the state's drawing system. For the 2005 hunt, almost 1,500 hunters applied for 30 licenses.

PHOTO:
JERRY MONTGOMERY

Using the Drawing Odds Reports

The New Mexico drawing process is complex and drawing odds reports can be confusing. Knowing how to use the reports and how the drawing works are the keys to submitting an application with a reasonable chance of success.

The Department of Game and Fish produced two reports for the 2005-2006 draw, which, when used in conjunction, can give you a fair idea of your drawing odds. To find them, visit the Department Web site, www.wildlife.state.nm.us, click "hunting information" and look in the right column for "drawing odds reports."

The best way to determine your approximate chances is to compare the numbers in the Draw 2 Applicant Detail report with the number of successful applicants in the Draw 2 Odds Report for the drawing pool you plan to apply in.

The Draw 2 Odds Report contains the total number of first, second and third choice applicants for each hunt. The applicant numbers are not separated into the quota pools. This report also shows successful applicants and percent drawn for the resident, guided nonresident and non-guided nonresident pools.

Be aware that the applicant numbers on the Draw 2 Odds Report indicate the total number of people who listed the hunt as a first, second or third choice on their application. This can be misleading because a first-choice applicant very likely applied for other hunts as second or third choices. Because each application can only be drawn for one hunt, the numbers could actually be lower than the numbers indicated because some applicants would have been successful for one of their choices, and therefore their other choices would no longer be included in the draw.

The Draw 2 Applicant Detail report includes a detailed listing of first, second and third choice applicants broken down into the resident, guided nonresident and non-guided nonresident pools, plus a listing of successful applicants by choice. This report shows how many people in each drawing quota pool listed each hunt as a choice on their application.

Because of the complexity of the process and the number of variables involved, there is no foolproof way to determine the odds of drawing for any particular hunt, but at the very least, the reports can help you make an informed decision about what to apply for.

For more information about the drawing odds reports, call (505) 476-8006.



A Century of Wildlife Management

Part 10: An obligation to all wildlife

Conservation plans embrace non-game and endangered species

By JOHN CRENSHAW



Laws have protected marmots and other wild mammals from market hunting and casual killing since New Mexico was a territory.

PHOTO: CLINT HENSON

Bill Huey, Department of Game and Fish Director from 1975-78, was instrumental in creating the agency's endangered species section.

PHOTO: DAN WILLIAMS



The New Mexico Department of Game and Fish's historical association with hunters and anglers, and with animals taken mainly for sport and food, inevitably left the agency open to accusations of a too-narrow vision, one focused solely on one group of citizens and a small group of wildlife species.

The past century's record doesn't support those accusations, although it doesn't fully refute them. There certainly are gaps, some created by legislative fiat, some by funding resources, and some by the Department's constituents and leaders' attitudes. One example: Many people today look in dismay at the state's past predator control programs.

Still, very early laws, enforced by the nascent Game Department of the early 20th century, protected non-game birds and wildlife. Mid-century agency actions, especially land acquisitions, provided wildlife habitat for non-game birds, mammals, fish, and invertebrates, as well as deer or trout. And the agency, driven in part by the conscience of employees within its ranks and in part by external influences, showed a markedly increased awareness of, and concern for, non-game species in the last quarter of the 20th century.

Laws protect all species

The state Legislature passed laws protecting hawks, owls and vultures in 1973 and another to control commercial taking of reptiles and amphibians in 2001. The Wildlife Conservation Act in 1973 was a watershed event, giving the Game Department responsibility for protection of state-endangered species. However, far earlier laws were ev-

ery bit as important to the protection of New Mexico's non-game wildlife.

One of the very earliest New Mexico Territory laws outlawed market hunting in 1897. It targeted not only deer and elk, but also species such as marmots and pikas, which we hardly think of as game animals today. The territory next outlawed the killing of song and insectivorous birds in 1901 and created a tiny Game Department to enforce those and other laws in 1903. A series of federal laws, highlighted by the federal Migratory Bird Treaty Act of 1918, shielded a wide array of migratory birds – not only ducks and geese, but also robins and meadowlarks – from market hunting and casual killing. New Mexico and other states wrote and enforced complementary laws.

Nationally, congressional passage of the 1966 Endangered Species Preservation Act reflected the public's growing concern for wildlife and its environments. Congress followed that with the strengthened Endangered Species Act of 1973, which invited state participation and helped fund state programs. That gave impetus for New Mexico to pass the 1973 Wildlife Conservation Act, based on a model developed by the Wildlife Management Institute with former Department Director William S. "Bill" Huey's considerable input.

"A professional responsibility"

The Game Department was the logical agency to take on the endangered species program and already had acknowledged the need internally, said Huey, at that time an assistant director.

"We'd always been pretty much directed toward concern for game species," he acknowledged. But change was coming.

"I remember saying at a staff meeting that we have statutory responsibility to a number of species, the game species, but because of inclination and training we have perhaps an even greater responsibility to non-game species, a professional responsibility to those species," Huey said.

"I think at that time we really began to give serious thought to our obligation to all wildlife, not just to game species that we were given responsibility for under state law," he said.

The agency began asking itself what affects its actions might have on non-game species. Initially, answers to those questions centered on the Department's own properties, such as prairie chicken areas in eastern New Mexico, waterfowl areas along the Rio Grande and Pecos River, and big game management areas in northern New Mexico. "We pursued that. When we bought a piece of property or constructed some project to work on habitat, we began to give very serious thought to what effect that action would have on the non-game species," Huey said.

The Department of Game and Fish was an early leader in the West, playing host to what Huey recalled as the first symposiums on non-game wildlife conducted in the western states.

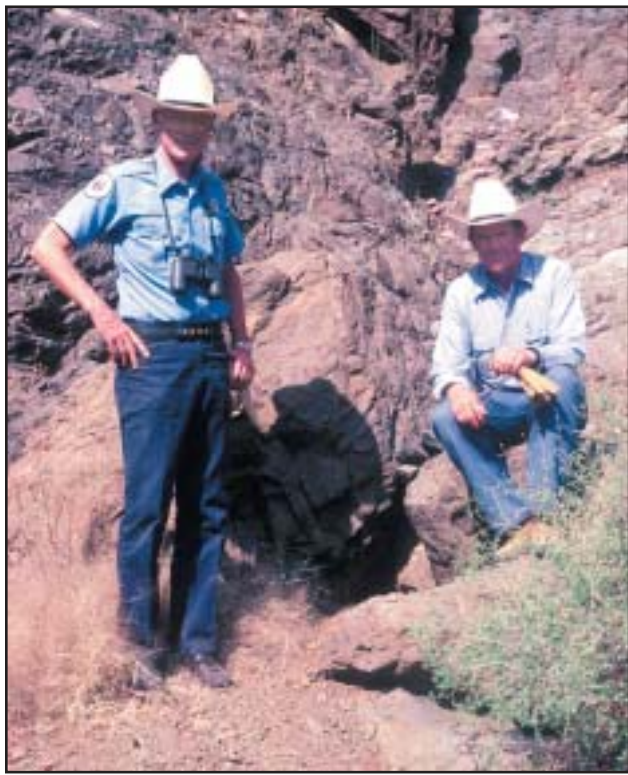
"I've always felt good about that, that we did hop in there to consider our total obligation to the wildlife population, not just the game population," he said.

...continued on page 8



John Hubbard, left, was the first leader of the Department of Game and Fish endangered species section. He is shown below with Alton Ford, manager of the Red Rock Wildlife Area, a breeding area for endangered desert bighorn sheep.

PHOTO: CHARLES M. BOGERT



Hubbard takes the lead

With that attitude and his position as an administrator and agency lobbyist to the state Legislature, Huey was a pivotal figure in edging the agency toward broader perspectives in general, shepherding the Wildlife Conservation Act through the Legislature and creating the agency's endangered species section in 1974 to carry out the act's provisions.

One of his first actions was to hire Dr. John Hubbard, an ornithologist, to head the project. Those first few years were probably the most exciting times in the Department's non-game history.

A New Mexican since 1950, Hubbard had followed the Act's development from his job in Delaware at the time. Although longing to come back to the state, he recalled, he'd had misgivings about whether the Game Department was the proper agency to house the program. He'd gone so far as to write the bill's sponsor, suggesting that the act create a new agency.

"I said, I can't imagine that the Game Department has any expertise, and even if they get outside expertise, they have such a long tradition of consumptive use that it may be very difficult for them to see the needs of endangered species from a standpoint that I think would be best for their conservation," Hubbard said.

The suggestion was declined, and after reassuring meetings with Huey and others, Hubbard started July 1, 1974, and headed the agency's first endangered species team. Other team members were Howard Campbell, a long-time Department employee and respected herpetologist, and newly hired biologists Marshall Conway (mammals) and Greg Schmidt (fish, initially, later also working with mammals). Mike Hatch, a fish expert, joined the section later. Hubbard covered birds, and everyone helped with mollusks and crustaceans. Norma Ames, a zoologist who reared Mexican wolves at her home outside of Santa Fe to help keep the Ghost Ranch lineage alive, was the first group's immediate supervisor.

They hit the ground at a full run.

Juggling duties and deadlines

"I'm not sure when I found out what a deadline we were under," Hubbard said. The legislation gave them barely half a year to compile a list of candidates for the endangered species list, get it out for public review and input, revise it and present it to the State Game Commission by January 1975. All the team members were also commissioned as game wardens. The others had already undergone the required schooling, but Hubbard had to cram in a month's training at the New Mexico Police Academy and make time for the agency's own law enforcement training while building the list.

"I don't think you could do it now, not on a 40-hour week. We didn't work 40-hour weeks; we couldn't. All of us were commissioned, and all of us were working hunts," he said.

The endangered species work required extensive personal knowledge, research, literature review, and input from academics who had been studying the creatures.

people that were interested and have them participate, the last thing you wanted to do was to start changing definitions," Hubbard said.

Endangered vs. threatened

Although the act provided for only one status – endangered – the team administratively split the list into Category One and Category Two, equivalent to the federal law's endangered and threatened groups. The first included species in immediate jeopardy and the second those that could be jeopardized in the near future.

"Our next big chore was to whittle this list of candidates down into some manageable group. We didn't have any particular target number. We just had to have this stuff out no later than late fall, have a 60-day review and get comments back in, then work on the list some more, and send out at least a 'for your information' list of what we proposed to go to the commission with," Hubbard said.

All that was accomplished, on time and on budget.



(above)

A project to study New Mexico's swift foxes is among those funded by the federal State Wildlife Grant program, which began in 2001.

PHOTO: DON MACCARTER

(right)

A 1982 amendment to the federal Endangered Species Act allowed "nonessential experimental" reintroductions of species such as the Mexican wolf.

PHOTO: DAN WILLIAMS



"Howard Campbell was great; he already had rapport with people at places like the University of New Mexico; he had herpetological credentials. He particularly knew the status of reptiles. The amphibians were harder," Hubbard said.

"And in the process of reviewing groups of organisms, you know, not only did we have to go to academia to get data, but we also had to put to rest their fears that listing a species didn't mean they would never get to do research on it or collect it again," he said.

With the weeks ticking by, the group dug through the literature, picked experts' brains and laid out standards.

"We wanted to have the criteria set from day one, instead of changing them over time. We felt that if we could get the attention of

"And it sailed right through the commission," Hubbard recalled with some justifiable satisfaction.

That first list included 91 vertebrates. Category One included four mammals, 11 birds, two reptiles, and nine fishes; Group Two included nine mammals, 19 birds, 17 reptiles, five amphibians, and 15 fishes. The act also provided for the listing of mollusks and crustaceans, a number of which were subsequently listed, including the aquatic Socorro isopod.

That the act allowed inclusion of small, isolated populations of creatures unknown to hardly anyone outside of professional biologists' circles pleased Hubbard.

"It had bothered me, and a lot of other people, about our frequent concentration on



the so-called charismatic megafauna, the 'oh my' species like the bald eagle and the peregrine falcon when there were a lot of 'lesser' species that needed attention and whose recovery was often simpler," he said.

Until they were protected in 1941, horned lizards were used to make tourist trinkets and sold as doomed pets.

PHOTO: CHARLIE PAINTER



the University of New Mexico and Eastern New Mexico University.

"I felt that if we could build these contract relationships in such a way it would appeal to their biological interests, we could open the door to new people, new technologies, and so on," Hubbard said.

He also turned to volunteers. "We developed the fine art of piggy-backing on birders with the New Mexico Ornithological Society – which Bill Huey co-founded in 1962, by the way. If you get people to meet certain standards in their bird records, they give you eyes and ears where you couldn't possibly come up with enough contract money or enough staff. They can give you records you couldn't possibly afford," he said.

The numerous investigations led to additional information and, over time, added species to the lists.

Good data also led to species being removed from the lists, such as the coatimundi and Mojave rattlesnake in southern New Mexico, the prairie vole in northeastern New Mexico, and others.

cure than we'd thought, in these cases because they had a more extensive range, we'd take a hard look at them and sometimes take them off the list," he said.

"Whooping" conflicts

The nature of the job and the laws themselves required collaboration with other state and federal agencies, especially the U.S. Fish and Wildlife Service. Relations were generally good, but one particularly significant project created a deep rift. It had national repercussions and eventually led to a significant amendment to the federal Endangered Species Act.

New Mexicans were thrilled in the mid-1970s when the U.S. Fish and Wildlife Service created a foster parent program for whooping cranes. Biologists – adapting crane husbandry techniques researched by Huey with sandhill cranes at his home in Tesuque – slipped whooping crane eggs into sandhill cranes' nests. The hope was that the sandhills would raise the whooping cranes and teach them the migratory route from Grays Lake National Wildlife Refuge in Idaho to Bosque del Apache in central New Mexico.

Whooping cranes did make it to the Bosque, but there was fallout and a falling out.

"Bill Huey was involved with crane management for many years, so it was natural that he was a member of the group that got this whooping crane project in New Mexico and Idaho off the ground," Hubbard said.

The initial – and verbal – agreement between the federal and state agencies was that the feds would take a pragmatic approach that put the whooping cranes into real-world situations, that the rare birds' presence would not severely alter existing management practices, including waterfowl hunting, along the Rio Grande Valley. Any changes were to be small and gradual.

"Hardly a year or two went by before the feds designated Bosque del Apache as critical habitat, and all of a sudden waterfowl hunting was jeopardized," Hubbard said.

"Management at Bernardo (state waterfowl area) was impacted even earlier. We used to massively band waterfowl there after hunting season was over, when we could bait and use cannon nets when cranes and waterfowl were staging there. Then the feds were saying, 'Now that the whooping cranes are coming up there with their foster parents, we're not sure we can allow you to do that any more,'" he said.

A second conflict swirled around the Mexican duck, also protected for a time as a federal endangered species, when the Fish and Wildlife Service threatened to end waterfowl hunting where it occurred. Hubbard's own taxonomic work, showing that the U.S. population was hopelessly hybridized with mallards, got it removed from the list.

Discord over the whooping crane simmered on. The state and federal agencies sparred, negotiated, and slowly worked things out over several years. The Bosque whoopers never reproduced, and the project was phased out. But state officials, who had gone on out on a limb to persuade local farmers and hunters to accept the program, felt they'd been betrayed.

...continued on page 10



(above)
A project to reintroduce endangered whooping cranes to the migratory route from Idaho to New Mexico ruffled some feathers when it interfered with hunting seasons and ongoing waterfowl research.

PHOTO: DON MACCARTER

(left)
Bald eagles and other raptors are protected by New Mexico and federal laws.

PHOTO: DAN WILLIAMS



Recruiting partners, volunteers

The endangered species staff spent considerable time in the field, camping out and investigating the status of the full range of potentially endangered wildlife. The tasks were far too numerous and too broad for such a small crew, however, and they looked outside the agency for help.

"I pushed a lot of work onto contractors, especially at the universities," Hubbard said. That included work through established contacts at the New Mexico State University and Colorado State University wildlife schools and expanded connections with biologists at

"One was the white-ankled mouse, a *Peromyscus* species. It was a good example of how our crew could work deer or elk hunts part time and be trapping or observing on the side. This particular species occurs in the Trans-Pecos area of Texas and was known to be in the area around Carlsbad Caverns. So by day we would work deer hunts in the Guadalupe, then at night set out traps around Whites City," Hubbard said.

The species was more common and widespread than older records had suggested, and it came off the list.

"That was one where we definitely went after the beast, on the assumption that suitable habitat wasn't being looked at. The same with the prairie vole. As soon as we got information that a species' status was more se-



“Nonessential, experimental” compromise

“It was an on-the-ground lesson for me,” said Hubbard, who observed the conflict from the sidelines. “I came to the conclusion that the only way that a state should enter into an agreement like this was by having an amendment to the ESA (federal Endangered Species Act) that would allow this to go forward not with an ‘understanding’ but with signed agreements.

“We had no signed agreement. We didn’t even have an environmental impact statement all the parties had signed off on. The states could jump up and down and raise hell, and it cut no ice,” he said.

Hubbard proposed a solution, accepted by the state agency and, eventually, the Fish and Wildlife Service and the U.S. Congress.

“I came up with the experimental population concept. We were actually able to get that amendment done to the act – Congressional action amending the federal ESA,” he said.

That amendment went into effect in 1982. Although the “nonessential experimental” designation elicits a full range of emotions and opinions from the public and biologists, the amendment’s purpose is purely pragmatic. Under it, federal agencies can introduce populations of endangered species into the wild without imposing sweeping changes that would draw unbending and most often insurmountable opposition.

The Mexican Wolf Recovery Project in New Mexico and Arizona is one example.

Threatened fish derail dam

New Mexico’s Wildlife Conservation Act, unlike its big federal brother, only protects the listed animal itself and provides no authority for critical habitat designations. On rare occasions, however, its work has played on a larger stage, one being the proposed Hooker Dam in the Gila River Basin.

Dams, while impounding reassuring amounts of water for irrigation and recreation – including angling for species not seen in New Mexico before the big reservoirs were built – had significant and undeniable detrimental effects on a number of New Mexico’s native fish species.

One question was what impact Hooker might have.

“We already knew that major surviving populations of the loach minnow and spikedace were in New Mexico, but we didn’t know enough about them,” Hubbard said. So he sent in a trio of contractors “to investigate and figure out what the status was. And they did a bang-up job.”

The two fishes were soon on the federal government’s threatened species list. “We gave them the data,” Hubbard said. That listing and the subsequent critical habitat designation combined with questionable economics and water rights factors to derail the dam plans in the mid 1980s.

State lists 123 species

Significantly amended in 1995 to include a series of conditions and steps for listing a species, the state’s list as of the 2004 biennial review included 123 species, among them a range of mammals, birds, fishes, reptiles, amphibians, crustaceans and mollusks.

Protection for non-game continues, piece

by piece, with reptiles and amphibians being the latest recipient in 2001. With the lonely exception of “horned lizards,” which the state Legislature protected in 1941 when the little creatures were being converted into jewelry and exploited as doomed pets for tourists, any reptile or amphibian not on an endangered list was free for the taking. It was feared that commercial collectors, in places such as along the Boot Heel’s dusty roads, were having a negative impact on some of the more desirable species.

The 2001 act, although exempting reptiles or amphibians taken for rattlesnake round-ups, fish bait (waterdogs, primarily) and lizard races designates all of them as protected non-game animals for commercial taking purposes.

Legislation to simply give some legal status and protection to all non-game species – including consideration in the 1973 Wildlife Conservation Act – has never moved forward. Opposition, particularly from rural interests, is always strong. Politically savvy Department directors have always known that setting such a bill into motion can be dangerous: What comes out always has potential for being far worse than what went in or already exists.

Money matters

Funding for non-game and endangered species also always seems in short supply, and hardly anyone agrees even on what the source should be.

Bill Huey is forthright: “Non-game funding should come from the general fund,” he says flatly, but no such legislation has ever gotten off the ground beyond that provided under the Wildlife Conservation Act.

Instead, successive committees over several decades, most recently in 2004, have examined possible alternative funding for wildlife programs and come up with recommendations, some novel, some naïve, some very workable. But to date, no substantive, ongoing and broad-based source has been found.

The New Mexico Wildlife Federation took the lead in garnering one alternative funding source in 1981, backing legislation that created what became the Share with Wildlife program and then helping to promote and advertise it when it passed.



New Mexicans who buy \$25 Share With Wildlife license plates contribute about \$25,000 a year for the state’s non-game wildlife.

The concept was simple: Citizens could voluntarily check off all or part of their state income tax refund, donating it to the Game Protection Fund as a way to support wildlife.

The surprising results: First-year donations totaled \$256,000. Then-director Harold Olson, in the 1981-82 annual report, noted, “Our most optimistic estimate of the income



Wild birds such as the Bullock’s oriole have been protected in New Mexico since the early 1900s.

PHOTO: MARTIN FRENTZEL

it might produce was \$150,000.” He also pointed out that “donations came both from sportsmen and from people who do not hunt, fish, or trap, and many of the donors expressed their interest in development of more programs to benefit non-game species.”

The generous donations levels did not last, though. In the early 1980s, the state was handing out income tax rebates that increased not only the size of refunds, but also the number of taxpayers receiving them. But within a few years, the tax rebates were repealed and other agencies coat-tailed in with competing check-offs. By tax year 2005, a half-dozen other programs and four political parties were asking for tax refund check-off donations.

As contributions dropped, Share with Wildlife and its citizen allies sought additional funding sources. In 2003, legislation authorized sale of a specialty license plate, adorned with a Gambel’s quail, to help raise funds for the program. The \$25 plate generates about \$25,000 annually, while the tax check-off and other donations now hover at about \$35,000.

There may be some hope at both the national and state levels, however.

The national Teaming with Wildlife coalition, with state wildlife agencies and some 3,000 conservation groups from across the spectrum as members, has lobbied Congress for years for a sustained funding source for non-game wildlife and successfully persuaded Congress to pass the State Wildlife Grant program in 2001. Congress has funded it at approximately \$70 million to \$75 million a year since. New Mexico receives about \$75,000 to \$80,000 a year.

Then, in near keeping with Huey’s suggestion, the 2006 legislature considered the Land, Wildlife and Clean Energy Conservation Fund, a comprehensive, \$10 million appropriation from oil and gas revenues that would have included funding for wildlife conservation, outdoor recreation and other conservation matters. It mired down in the legislative bog of bills, but, like the license plate bill and others before it, may pass in the future.

Step by step, and piece by piece, those lesser creatures are getting attention. ■

JOHN CRENSHAW is a writer, outdoorsman, and retired chief of the Department of Game and Fish, Public Information and Outreach Division.



'Old Refuge' is newest state park

BY LUANN TAFOYA

The "Old Refuge," 52 acres of bosque wetlands purchased by the State Game Commission in 1933, is poised to become a waterfowl sanctuary, an education center and the heart of New Mexico's 34th state park, thanks to a partnership among the Department of Game and Fish, New Mexico State Parks Division and others with stakes in the southern Rio Grande bosque.

Work already has begun on the 307-acre Mesilla Valley Bosque State Park south of Las Cruces. Governor Bill Richardson jumped in a backhoe and dug a trench for new young cottonwoods as he helped dedicate the park in December. Formerly known as the Old Refuge, and Picacho Bosque, the new park is scheduled to open to some public use in early 2006.

"By protecting and restoring the Rio Grande and the bosque, we will educate our children about nature, culture and conservation," Governor Richardson said. "What a fantastic project! I'm proud it is moving forward under my administration."

An ambitious development plan calls for a partial park opening in early 2006. State Parks' goal is to make the park a reflection of Rio Grande Nature Center State Park in Albuquerque, which is considered one of the state's best nature education and recreation centers.

"We plan to make this new park our southern jewel along the Rio Grande bosque," State Parks Director Dave Simon said. "Our focus will be community-based conservation with an emphasis on education."

Mesilla Valley Bosque State Park is one of five parks that include land leased to the State Parks Division by the Department of Game and Fish. Others are Eagle Nest Lake State Park, Cimarron Canyon State Park, Fenton Lake State Park and Clayton Lake State Park.

"These kinds of partnerships help both state agencies as we work toward protecting our natural resources and creating more opportunities for the public to enjoy them," Department Director Bruce Thompson said. "This new park is a prime example of those efforts."

Future plans for the park include an integrated trail system for hiking, biking, and horseback riding, with access to observation decks for wildlife viewing. An education center with interpretive displays, classrooms and a gift shop is scheduled to be completed in 2007. In all, about \$2.8 million in state and federal funds have been committed to the first phases of development. Long-range plans include acquisition of more land from private landowners, the U.S. Bureau of Land Management, U.S. Bureau of Reclamation, and the Elephant Butte Irrigation District to bring the total park size to around 1,000 acres.

The current park boundaries extend south from the Mesilla Bridge, where N.M. 359 crosses the Rio Grande, to the Mesilla Dam. Four entities are involved in joint ownership and management of the property:

- The Department of Game and Fish owns 52 acres, which are managed by State Parks under an interagency Joint Powers Agreement. The agreement allows State Parks to manage and develop the property, charge user fees, assist with resource management, and provide law enforcement. Fishing will be allowed in the park, but hunting will be prohibited.
- The International Boundary and Water Commission has leased 100 acres of land within the park to State Parks.
- New Mexico State Parks owns 13 acres, acquired from Harris Farms for construction of the main activity complex, which includes an access road, visitor center, education center, gift shop, picnic area, parking area, office and maintenance yard.
- The remaining 142 acres are owned by Harris Farms, with a conservation easement held by State Parks.



(above)
A portion of the new Mesilla Valley Bosque State Park wetlands formerly was known as Picacho Bosque and the Old Refuge.



(left)
The scenic Organ Mountains are a scenic backdrop from the Rio Grande levee road at Mesilla Valley Bosque State Park.

"It has always been a special place," Buford Harris said of the property his family has owned since 1938. "We are proud to have it in a state park. Urban sprawl is creeping out toward us at quite a pace and it's important to be able to help preserve a part of New Mexico's cultural and natural heritage."

Park Superintendent Stan Ellis said Mesilla Valley Bosque State Park will be an opportunity to showcase the wetlands, the wildlife, and the history of the Mesilla Valley.

"It also will be a great opportunity for State Parks to become an active part of the Mesilla community," Ellis said. "Our primary goal is to restore the area to its natural state, to give visitors a chance to enjoy New Mexico's riparian and bosque habitats – and to visit a wildlife sanctuary."

Protecting and restoring the Rio Grande bosque has been a longtime goal of Kevin Bixby. As executive director of the 14-year-old Southwest Environmental Center in Las Cruces, he has spearheaded community efforts to establish a wetlands preserve in the area. The Environmental Center, along with the City of Las Cruces, the Trust for Public Lands, and the Land and Water Conservation Fund all have contributed to the costs and work involved in establishing the new park.

"This new park demonstrates the power of a good idea, and how important citizen activism is in their development," Bixby said. "For us, this is a river restoration site, a place worth saving. Unlike most of the Mesilla Valley, it has some remnant riparian habitats that were once found in the flood plain of the Rio Grande. Today, 90 percent of those habitats are gone, but this site still has some of those values left – the cottonwoods, tornillo and the beautiful wet meadows that you just don't find anymore." ■



(below)
Governor Bill Richardson handled the backhoe during Mesilla Valley Bosque State Park ground-breaking ceremonies in December 2005.

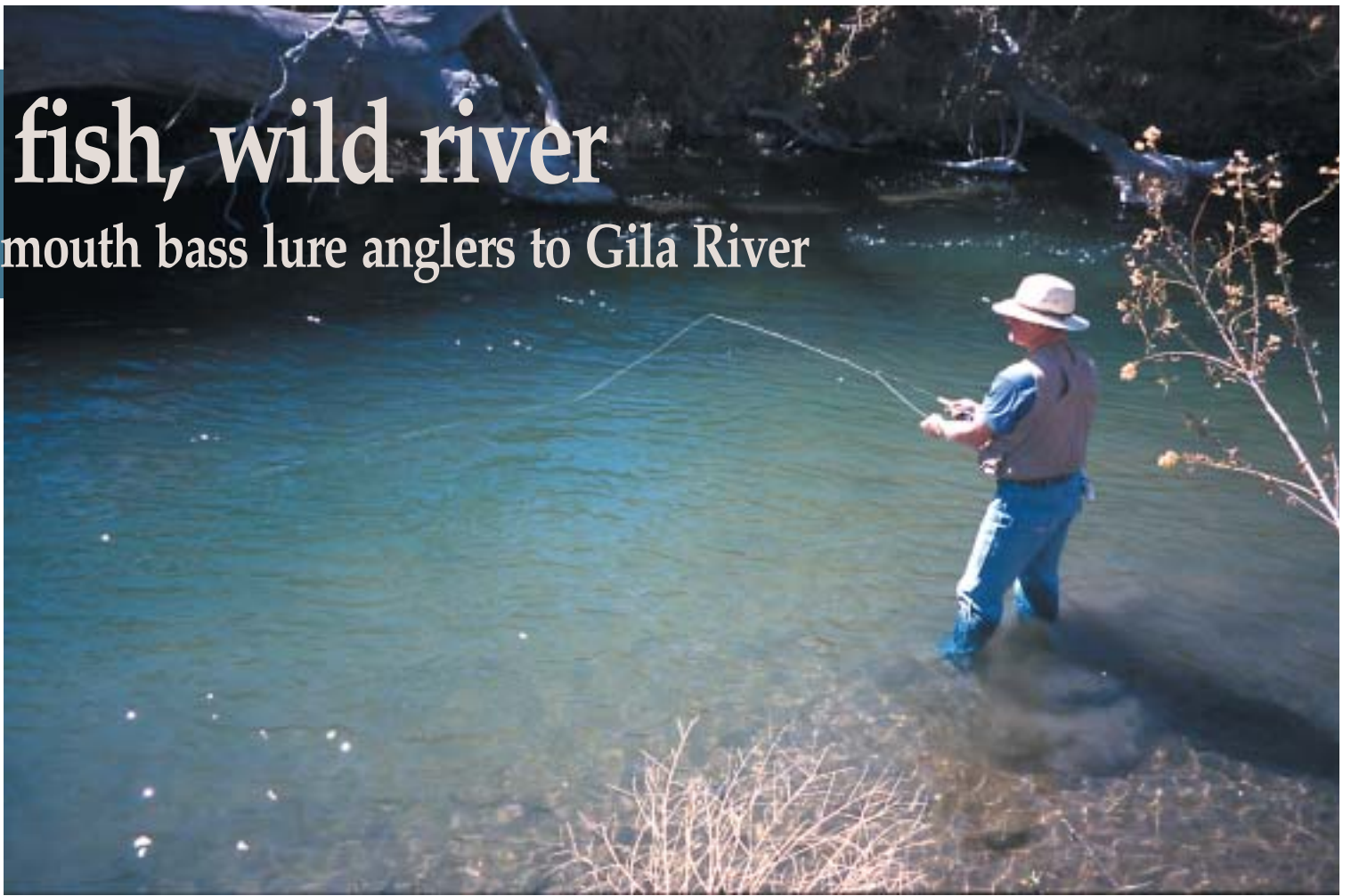
PHOTO:
LUANN TAFOYA

LUANN TAFOYA is the Southwest Region Public Information and Outreach Officer for the Department of Game and Fish.

Game fish, wild river

Feisty smallmouth bass lure anglers to Gila River

BY M.H. DUTCH SALMON



Dr. J.A. Henshall, in his classic 1881 volume "Book of the Black Bass," lauded the smallmouth bass (*Micropterus dolomieu*) as "ounce for ounce and pound for pound, the gamest fish that swims." It remains an interesting claim, never entirely provable, but the subject of many campfire debates, and that's always fun. In a column, I once rated all the available sport fish in New Mexico as to wariness, energy at the strike, speed and endurance on the end of a line, and leaping ability. By my reckoning, the smallmouth was the only species considered that rated highly in all these factors of "gameness." So Dr. Henshall may have had a point and certainly, as fishing lore if not science, his statement has stood the test of time.

Such a special fish deserves a special place, a wild place where a game fish can reproduce naturally. The Gila National Forest, 3.3 million acres north of Silver City, contains our nation's first designated wilderness area. Some 800,000 acres of the Gila and Aldo Leopold wilderness areas have been set aside as off-limits to vehicles, roads, and development, but open to fishing and hunting. At its heart flows the Gila River, the last main stem river in New Mexico without a holding dam or impoundment. West of the Continental Divide, and far from the native haunts of Dr. Henshall's favorite fish, this stream holds an improbable population of wild smallmouth bass.

It is interesting to consider how these bass got into our state's last free-flowing river. For a while I thought it was a good ol' boy I'll call Billy. Ol' Billy and I used to hang out at the same honky tonk in Silver City. He knew I liked to fish, and that I also had a certain local reputation as an "environmentalist." Billy didn't like environmentalists and he enjoyed a tease, telling me on a number of occasions that he was the outlaw that managed a rogue introduction of bass into the Gila, in violation of game laws and "to prick all those enviros and biologists." Of course ordering up some smallmouth bass from some faraway hatchery and keeping them alive over a long trip to finally release them surreptitiously into the wilderness isn't easy. But Billy told a good story and it almost sounded plausible until I got hold of an obscure New Mexico Game and Fish stream survey of the Gila River, circa 1953. Turns out the smallmouth bass was already well established in the Gila, from the forks on down to the Middle Box Canyon, when Ol' Billy was still in grammar school.

A check of agency stocking records shows that it was our own Department of Game & Fish that had a hand in it, stocking smallmouth bass in the Gila River in 1941 and 1944. The bass didn't need any help once they got in there. Periodically, raging floods, drought, and ash flows that follow forest fires will knock their populations back. One summer, after a particularly bad fire and a massive flow of black ash, I couldn't find a bass in my favorite stretch of river. I thought, "The smallmouth are gone from the Gila!" But invariably some survive such catastrophes and it didn't take them but a year or two and they were back in good numbers.

Bronze beauties for miles

The smallmouth of the Gila are emerald green with bronze markings. The Gila and its three forks, the east, middle and west tributaries, is a series of swift, whitewater runs, which oxygenate the water, riffle habitats, and deep green, rocky, pools – perfect habitat for these bronze bass at elevations starting at about 6,000 feet.

The entirety of the east fork has bronze bass, including its principal headwater, Beaver Creek, a total run of about 30 miles. The bass are found for about 10 miles up the middle fork, and in lesser num-



(above)
A bit of hiking is required to reach the best smallmouth bass fishing on the Gila River.

(left)
Large flies, such as (clockwise from top left) the bumblebee, wooly buggers, and Pistol Pete work well for Gila River bass.

PHOTOS: JAN HALEY

bers in the lower portion of the west fork. From where the forks meet at Grapevine Campground, the bass are prevalent on down through the "wilderness run," about 42 miles to the confluence of Mogollon Creek. From there on downstream they exist in lesser numbers as the water warms, providing limited fishing in the regions known as the Middle Box below Cliff and the Lower Box below Redrock. I used to say that was the end of it for bass in the Gila. But a resident of Clifton, Ariz., recently told me that bass are showing up well downstream, around the confluence of the Gila and San Francisco Rivers. Clearly, this is an adaptable fish, sharing cold waters with trout and warm waters with catfish and carp.

With the vagaries of flood, drought and fire, the Gila's bass fishing can be good or disappointing depending on the year. But even when it's good there is little chance that the Gila's bass will be overburdened by anglers. The great majority of prime bass habitat is within wilderness and roadless areas; it's public land and you are welcome to go there, but this is not roadside fishing. To get to the honey holes, some fitness and a strong hiking ethic is required. Usual access points are the Grapevine Campground, the confluence of the middle and west forks, near the Gila Visitor's Center, and the Turkey Creek and Mogollon Creek Campgrounds downstream. From any of these locales you can hike to some of the prettiest bass fishing you will ever see.

Bait always brings out the best

I started out bait fishing the Gila. I mostly use flies today, but bait fishing is still great sport, especially if you are acting as guide to several errant children. In the summer of '04 it was my task to humor my son Bud (at the time eight years old), and his friends Christopher (nine) and Ethan (seven) for a day of fishing. It was a strong hike to get to the best pool; it was June and bloody hot, and how do you keep three young rowdies from just going swimming and ruining the sport? I recalled my own youth and how much fun it can be to catch bait.

So we skipped the night crawlers at Wal-Mart, grabbed the fine mesh net, and I said, "Boys, we're going to catch our own." At the first crossing I got them to turning over rocks in fast water. They were astounded at all the life under there – water beetles and a variety of larvae – but no way would they pick up the hellgrammites that were the prize. All those legs and the big pincers were just too much. The hellgrammite is the larval form of the large Dobson fly and I put a



few in a plastic sandwich bag as we moved on to the flats. Many of the Gila's quiet backwaters are loaded with non-native crawfish, and only the hellgrammite rivals a crawdad as bass bait.

You should have seen those boys get after those crawfish! They whooped and splashed around and chased them with the net and it was such a sport they wouldn't hardly quit to go fishing. But they did finally get lines in the water, we caught three nice bass, and the biggest one at 16 inches put up such a scrap it took all three of them taking turns to get him ashore.

The spin fisher will use a small Dardevle, a Mepps spinner, a Rooster Tail, etc. A quartering cast upstream, flutter it through the current drift, then reel it in from down below. You will catch bass.

The fly caster will use a similar logistic of upstream cast, dead drift, then jig it in. Surface bugs will work, especially toward evening, but beadhead nymphs, wooly buggers, Clouser minnow, or anything else that sinks will generally work better. A strike indicator helps but I don't like them. Just put your fly at the head of the pool, then watch close for the line to check on the drift. When it does, gig him. He will run, he may well jump, and you'll know you are not hooked to a hatchery stocker. Generally, Gila bass are not picky as to the fly, but being wilderness fish they are spooky and you have to sneak up on them.

There are often so many small bass in the Gila it can be hard to hook a large one. One day last summer I made that rare perfect cast to a deep pocket between two boulders. He took that black wooly bugger and looked so big in the water I thought sure I would exceed my best of 18 inches. But by the time I got this bass on the beach he had "shrunk" to just that length. Still, I was energized by such size. The next time on the same stretch of water I landed 21 bass but none was more than 10 inches. Which leaves me with a thought: The bronze bass is not native to the Gila and no doubt competes with scarce natives such as the less sporting roundtail chub. Should we liberalize the take of small bass while requiring that the big ones be let go, leaving us over time with far fewer bass, but a selection of trophies? Could we help the natives and create a trophy bass fishery at the same time?

Any trophy smallmouth is an event for an honest angler. But a bronze bass of size from our state's last wild river is a memory for a lifetime. ■

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



Some Gila River smallmouth bass are worth bragging about.

PHOTO: JAN HALEY



The author with an 18-inch Gila smallmouth.

PHOTO: JAN HALEY



Bud, Christopher and Ethan took turns landing this nice Gila smallmouth bass.

PHOTO: M.H. SALMON

Smallmouth bass (*Micropterus dolomieu*)

ILLUSTRATION: JOSEPH R. TOMELLERI



Other Names: Smallie, smallmouth black bass, black bass, bronze bass, green bass

Origin: Introduced

Size: Smallmouth bass commonly live 5-7 years, with a few individuals reaching 10 to 20 years. Some bass waters grow some adults to weights of 2 to 3 pounds. In New Mexico, only a few exceed 4 pounds, and bass heavier than 5 pounds are rare.

Records: The New Mexico record smallmouth bass is 6 pounds, 14.4 ounces, caught in Navajo Lake in 1999 by David Young. The North American record is 10 pounds, 14 ounces, from Dale Hollow Lake, Tenn.

Identification: Bass are members of the sunfish family. The upper jaw of smallmouth bass does not extend beyond the back of the eye. The notch between the spiny and the soft-rayed section of the dorsal fin is not deep.





Gila trout inhabit New Mexico's most isolated watersheds, such as the upper reaches of the West Fork of the Gila River.

PHOTO: DAN WILLIAMS

Gila trout: beating the odds

With a little help from their friends, New Mexico's native Gila trout are rebounding from a century of abuse and bad luck, and by this summer could be downlisted from federally "endangered" to "threatened." And downlisting will bring opportunities for limited angling – maybe as soon as 2007.

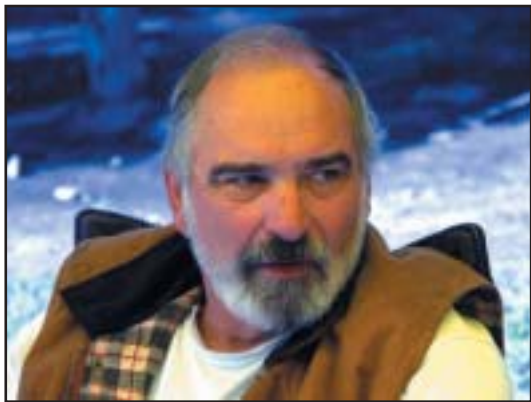
It hasn't been an easy journey, said David Propst, leader of the Gila Trout Recovery Team for the New Mexico Department of Game and Fish. In more than 20 years with the native trout restoration project, he's seen the trout beaten back by forest fires and drought, threatened by habitat degradation and invaded by non-native fish. Through it all, at least four distinct genetic lineages of the hardy trout still thrive in small streams of the Gila National Forest, some of their ancestors having been carried out of forest fires on mules. And through it all, the challenges for Propst and others on the restoration team has remained the same: preserve the species' genetic diversity by reintroducing pure strains of each lineage into separate waters.

"The key element is to retain all the diversity you have left, and to do that, you must secure replication of all the lineages," Propst said. "When we meet the requirements for diversity, we'll be able to get the species downlisted from "endangered" to "threatened." Eventually, our goal is to see the species delisted entirely."

By this year, ongoing restoration work spearheaded by the Department of Game and Fish, the U.S. Fish and Wildlife Service and the U.S. Forest Service in the far reaches of the West Fork of the Gila River will expand the Gila trout's range to almost 100 miles. Those self-sustaining populations will add security to each of the trout's genetic lineages from Main Diamond Creek, Whiskey Creek, Spruce Creek and South Diamond Creek. That's a far cry from conditions in the 1970s, when forest fires or severe drought easily could have wiped out the species.

Jim Brooks, the Gila trout restoration leader with the U.S. Fish and Wildlife Service, said downlisting will ease many of the restrictions that accompany "endangered" status, and open avenues for angling opportunities. The designated hatchery for Gila trout in Mora currently produces more trout than can be stocked in available waters. With delisting, those trout, including some of the large "brood stock" could be placed in waters that are more accessible than the small, high-mountain streams where most of the trout currently reside.

"There are some streams out there that would give people much better access and more realistically satisfy recreational anglers," Brooks said. "Right now we've got excess fish in the program – including some that approach 5 pounds and more than 20 inches — and no place to put them. With delisting, those fish would be available for stocking in areas with larger habitats and open canopies like the entire West Fork and much of the Middle Fork of the Gila."



David Propst leads the Gila Trout Recovery Team for the Department of Game and Fish.

PHOTO: DAN WILLIAMS



Kirk Patten leads the Rio Grande Cutthroat Trout Recovery Team for the Department of Game and Fish.

PHOTO: DAN WILLIAMS

NATIVE WATERS

continued
from page 1

started this year with a slightly different goal. Unlike the Gila trout, the Rio Grande cutthroat is not considered threatened or endangered and anglers can catch and in some places to keep them. However, because pure strains of the trout are found only in about 25 northern streams, state and federal agencies have launched an ambitious plan to enhance the trout's range, population and genetic diversity.

"The distribution of Rio Grande cutthroat trout in New Mexico is less than 10 percent of what it once was," said Kirk Patten, the Department of Game and Fish biologist recovery team leader. "We consider it a 'sensitive' species. Our goal is to re-establish populations of pure native trout in enough streams and lakes over a large enough area that there would be a very low probability of local extinction in case of a catastrophic event such as a severe drought or wildfire." The 10- to 15-year project involving state and federal agencies, conservation groups and private landowners is intended to remove non-native fish from streams and lakes in the Rio Costilla watershed, and then restock those waters with various lineages of native Rio Grande cutthroats.

Although both projects enjoy widespread support, they share a major hurdle: public concern over how to safely and effectively remove all of the non-native fish, which outcompete, interbreed with the natives, and degrade the genetics. Most fisheries biologists agree that the most effective way to remove all fish from a stream or lake is to use the short-lived chemicals antimycin or rotenone, which deprive gilled organisms of oxygen. A typical treatment scenario would include electroshocking to remove and hold other native species, followed by chemical treatment, stream surveys to ensure the treatment was successful, then restocking the water with natives. Chemical treatment, however, is now used only as a last resort for fish restoration projects – after non-toxic fish-removal techniques such as increased bag limits, salvage orders and electroshocking have failed.



Gila trout rarely exceed 10 inches, but can grow to 20 inches or more.

PHOTO: MARTIN FRENTZEL



Rio Grande Cutthroat: gaining mileage

New Mexico's state fish is not on state or federal "endangered" lists, and a committed band of conservation groups, government agencies and individuals plan to make sure it stays that way. The only way to do that, biologists say, is to safeguard the fish's genetic purity by creating more habitat that is free of non-native competitors.

"We're trying to re-establish the historic fishery," New Mexico Department of Game and Fish biologist Kirk Patten said of an ongoing project to restore pure strains of Rio Grande cutthroat trout to the Rio Costilla watershed in Northern New Mexico. "To do that, the federal Endangered Species Act requires the genetics to be pure."

Pure strains of Rio Grande cutthroats currently inhabit about 25 streams in New Mexico and several in southern Colorado. Some of the populations, mostly in upper regions of watersheds, are pure strains of native trout. Others have



Anglers currently are allowed to catch Rio Grande cutthroat trout in many New Mexico waters.

PHOTO: MARK GRUBER

been compromised because they readily interbreed with non-native rainbow trout, creating the familiar "cutbow." The Costilla restoration project is intended to protect and expand the range of pure, native trout in approximately 150 miles of streams, 25 small lakes, and Costilla Reservoir. Project partners include the New Mexico Department of Game and Fish, U.S. Fish and Wildlife Service, U.S. Forest Service, Interstate Stream Commission, Trout Unlimited, New Mexico Trout, Turner Enterprises and the Vermejo Park Ranch, The Rio Costilla Cooperative Livestock Association, and others.

"This project is huge," said Schudlich of Trout Unlimited. "It's going to take a lot of work and a lot of cooperation to make it happen."

With the planning phases and most of the public input process complete, the project is scheduled to move into the implementation phase this summer or fall. The plan is to remove all non-native trout and other fish species from the waters, then restock them with native cutthroats and other native fish, including the Rio Grande sucker, longnose dace and the Rio Grande chub. Non-native fish in the Rio Costilla watershed include brown, brook and rainbow trout, cutbows and non-native suckers.

Anglers currently can catch Rio Grande cutthroats in most mountainous areas of northern New Mexico, including the Valle Vidal, the Jemez Mountains and the Pecos Wilderness. Some of the cutthroats are pure natives, others are not. "Our goal is to re-establish pure native fish in 10 to 12 good self-sustaining populations," Patten said. "We want to keep the Rio Grande cutthroats off the endangered lists so people can continue to enjoy catching them."

This summer or early fall, restoration crews will begin the first phases of the project in the Costilla watershed: removing the non-native fish. The plan is to begin with a manual removal process – first by electrofishing, then following up with relaxed limits for angling, and finally a salvage order on all the fish in the stream. If those methods fail to remove all the non-native fish from the waters, a chemical removal process will be considered.

Is restoration worth the effort?

State and federal officials estimate that agencies have spent about \$200,000 a year on each of the native trout restoration projects, a price the biologists consider a bargain considering the millions of dollars a year often spent managing other wildlife species. Brooks, with the U.S. Fish and Wildlife Service, said he's pleased to see increasing public support for native trout restoration: "I think people today have a better understanding of endangered species issues," he said. "The idea of spending money supporting native fisheries is pretty attractive."

To anglers like Schudlich, the advantages of native trout restoration are obvious: "The main objective is to see New Mexico's fishing for Gila trout sometime in the future ... and to keep the Rio Grande cutthroat off the threatened and endangered lists." As a representative of the state's largest angling organization, he said he receives numerous inquiries from out-of-state anglers looking for rare fishing opportunities. And having more anglers means more awareness and protection, he said.

Other anglers aren't so sure. Bill Dyroff, a longtime New Mexico angler and fishing writer, said although he supports all efforts to protect native trout, he wonders whether catching one would be any more special than, say, catching a nice brown or rainbow. "I guess I would consider it something special if I caught one," he said. "But would I go out of my way to do it? I'm not sure."

Biologists Propst and Patten take a wider view of their work: "These fish are a unique resource for New Mexico anglers and the people who visit our state," Patten said. "They also have a tremendous economic benefit for the state and many rural communities. People come from all over because they want to fish for an exotic, native trout. And in New Mexico, we have two." ■

(right) Amy Unthank and Art Telles of the U.S. Forest Service treated the upper reaches of White Creek in the Gila Wilderness to rid the stream of non-native fish.

PHOTO: DAN WILLIAMS

(below) The Rio Costilla soon will contain only pure strains of native Rio Grande cutthroat trout.

PHOTO: MARTIN FRENTZEL





A great blue heron is all business as it patiently waits for its prey to swim within range of its sharp beak.

PHOTO: DAN WILLIAMS

Great blue heron (*Ardea herodias*)

Size: 48 inches long, 72-inch wing span

Eats: mostly fish, also mammals, rodents, amphibians, reptiles, insects and crustaceans such as crabs

Lives: near open water, along streams, rivers, lakes and wetlands

Did you know?

- Herons are fairly common and are protected by federal law from any hunting.
- Great blue herons are actually grayish-blue birds.
- Herons are carnivores (meat eaters), whereas cranes are herbivores (vegetarians).
- Herons have long black plumes that extend off the tops of their heads.
- Herons have a very deep, hoarse trumpet or croak voice.

You can make similar profile snapshot cards for other New Mexico wildlife that you know. Our New Mexico Wildlife Coloring Books can help you learn about the state's wildlife. You can download free copies of the four coloring books from www.wildlife.state.nm.us, the Department's Web site. Their titles include: "Wildlife of New Mexico," "Endangered Species of New Mexico," "Aquatic Wildlife of New Mexico," and "Life Zones of New Mexico."



A full-grown great blue heron stands four feet tall. PHOTO: DAN WILLIAMS

Big Blue

North America's largest heron

BY COLLEEN WELCH

The great blue heron is a year-round resident in New Mexico. Look for this excellent hunter/fisher in watery places – mostly streams, wetlands or lakes. It is pretty easy to spot a great blue heron along a shoreline. Everything about the great blue heron is long: At four feet tall, that's four of your 12-inch rulers laid out together. It has a long neck, long skinny legs and a long orange bill. In fact, a great blue heron is North America's largest heron. Another easy way to tell if you're seeing a great blue heron is that it stands very still – like a statue – while it patiently watches for its prey.

What's that up in the sky?



Great blue herons are common sights around New Mexico's lakes, rivers and streams.

PHOTO: DON MACCARTER



Follow the action

The heron goes into action as the prey approaches underwater. The heron plunges its long bill beneath the water's surface with a quick thrust of its powerful neck. Its victim is grabbed in an instant – perhaps a fat frog, or the heron's favorite food, a yummy fish. What else is on a heron's menu? Herons will dine on slinky snakes or squiggly, wiggly crabs, or skittering lizards – even jumping and darting insects such as grasshoppers and dragonflies.

Along the Rio Grande bosque

The great blue heron can be seen within the bosque along the Rio Grande in New Mexico. A patient observer may see "big blue" at the Bosque del Apache National Wildlife Refuge or the Bernardo Wildlife Management Area, both south of Albuquerque just off of I-25. Bernardo Wildlife Management Area is owned by the Department of Game and Fish and visitors are welcome to view wildlife at the newly constructed viewing decks. There are also improved loops for viewing wildlife from mountain bikes or motorized vehicles. The wetland habitat along the Rio Grande provides the great blue heron with the prey that it requires and sites for nesting. ■

COLLEEN WELCH is Co-coordinator for Conservation Education and Project WILD for the Department of Game and Fish. You can contact her at (505) 476-8119 or colleen.welch@state.nm.us.

