



WAFWA Report, Mid-Winter 2020

WILDLIFE MANAGEMENT DIVISION (WMD)

Elk –Wolf Interaction Study: New Mexico Department of Game and Fish, Arizona Department of Game and Fish and New Mexico State University are collaborating on a project to assess the potential influence of Mexican wolf recovery on elk population demography, movements, behavior and habitat selection. Elk population declines have been observed following other wolf reintroduction or recolonization events; however, the current lack of data in the southwest impedes development of informed management plans for elk in the Mexican grey wolf recovery area. In 2019, crews captured 425 adult female elk and 231 elk calves across the study area, with additional captures planned over the next several years. Annual survival rates of adult and juvenile elk and wolf seasonal kill rates and prey composition will be assessed. In addition, the influence of Mexican grey wolves on habitat selection by elk will be evaluated. Field teams are actively monitoring elk and investigating Global Positioning System (GPS) clusters formed by Mexican grey wolves fitted with GPS collars to inform models aimed at predicting likely population trajectories of elk populations subjected to varying levels of predation.

Sacramento Mountains Desert Bighorn Sheep Re-Introduction: Desert bighorn were restored to the Sacramento Mountains in October 2018, ending their near-century absence. Close to Alamogordo, N.M., this population will offer some of the best desert bighorn viewing opportunities in New Mexico. Management considerations in restoring desert bighorn to this historic habitat were the presence of mountain lions and Barbary sheep. Lion removals to decrease predation pressure on this new population occurred alongside the initial release. There is still much to be learned about the interactions between bighorn sheep and Barbary sheep. However, in an effort to reduce potentially negative consequences of bighorn overlapping with Barbary, the Department introduced an unlimited, over-the-counter, year-round Barbary hunt in this specific area. Aside from initial exploratory movements in the first few months, GPS radio collar data shows that bighorn generally use the rugged canyons within a few miles of the release site. Recent ground observations indicate that this new population experienced good recruitment in their first year.

Virginia's Warbler: During the 2019 breeding season, a pilot year project was initiated to test field methods and investigate Virginia's warbler occupancy and habitat use at the Rio Chama Wildlife Management Area. Virginia's warbler is listed as a Species of Greatest Conservation Need in the Department's 2016 State Wildlife Action Plan, and basic information gaps of phenology, population demographics and resource selection exist range-wide for this understudied species. Twelve potential breeding territories were identified, and conspecific song and call playback was used to elicit aggression/territorial defense and capture seven adult males. Each was marked with unique combinations of a metal USGS band and color bands, individuals were re-sighted after capture and habitat data were collected within territories. This project will continue for a minimum of two additional field seasons; data will be used to estimate sub-population demographics, analyze territory-based habitat use and resource selection and inform future habitat management prescriptions.

Chama Bear Dumpster Project: Chama is a small rural community in northern New Mexico. It is surrounded by excellent bear habitat and has a high bear population. Additionally, Chama is home to the Cumbres &



Toltec narrow-gauge railroad and supports a large, active tourist industry during summer. To support the tourists, Chama has a high concentration of motels and restaurants. These businesses produce a large volume of trash that is very attractive to bears. Historically, Chama utilized standard, unprotected dumpsters. These dumpsters offered no deterrent to bears and provided a strong incentive for bears to enter town searching for food.

As part of a cooperative effort to address this problem, the Chama City Council and the Department purchased 77 new bear resistant dumpsters. This is enough to replace almost all the existing unprotected dumpsters in town. Replacing existing dumpsters with bear resistant models will allow Chama's residents, businesses and tourists to dispose of their waste more securely. Additionally, the Department will continue working with Chama to develop a "Bear Aware" campaign to more effectively communicate to their residents the importance of making their community less attractive to bears.

As these artificial, anthropogenic sources of food become less available, it will reduce the incentive for bears to enter town, making it more likely bears will remain in the surrounding natural habitat. Reducing human/bear contact will decrease the possibility of negative human/bear interactions and increase safety for both residents and tourists.

U.S. Forest Service Wetland and Riparian Restoration NEPA Analysis: The Department is collaborating with the U.S. Forest Service and other partners to help support the development of a National Environmental Policy Act (NEPA) document to authorize restoration activities within riparian and wetland habitats across the Carson, Cibola and Santa Fe National Forests in northern and central New Mexico. In early fall of 2019, the Department provided funding to hire a contractor to work with the U.S. Forest Service to develop an Environmental Assessment that will streamline compliance and regulatory efforts, develop design criteria for restoration activities and build implementation guidance to include a consistent set of evaluation and prioritization criteria. In addition to support for this planning effort, the Department has also committed significant resources to implement future riparian/wetland projects identified and analyzed as part of the NEPA process.

Southeastern New Mexico Grassland Habitat Restoration Initiative: The Department is working with partners including the Bureau of Land Management, New Mexico State Land Office, National Resource Conservation Service, New Mexico Association of Conservation Districts (NMACD) and the Center of Excellence for Hazardous Materials Management (CEHMM) to improve habitat condition and connectivity in important habitat areas for pronghorn, the lesser prairie chicken and other obligate grassland bird species in southeastern New Mexico. In the fall of 2019, the Department entered into an agreement with NMACD to match National Fish and Wildlife Foundation funding to increase the scope and scale of mesquite removal and net-wire fence modification projects.

Edward Sargent WMA Riparian Resiliency Survey and Restoration: In July 2017, an interdisciplinary team of Department staff surveyed the perennial stream systems of the Edward Sargent Wildlife Management Area (WMA) near Chama in Rio Arriba County. The survey method utilized, the Proper Functioning Condition method, was collaboratively developed by the Bureau of Land Management, the U.S. Fish and Wildlife Service and the Natural Resources Conservation Service. This qualitative assessment allows land managers to quickly



identify the condition and functionality of the physical processes of a riparian system and determine its state of resiliency. Findings from this survey will allow Department staff to prioritize and design restoration treatments and locations on Rio Chamita, Sixto Creek and Nabor Creeks within the Edward Sargent WMA. In the fall of 2019, the Department installed 15 acres of riparian fencing and the first of up to 33 beaver dam analogs along the Rio Chamita.

Department Involvement in Prescribed Fire Activities Statewide: The Department is engaged with multiple partners across New Mexico in the restoration of forest and watershed health at large landscape scales. The re-establishment of natural fire regimes, especially in frequent fire forest types, increases resiliency of these systems to change, including climate-induced changes in temperature and precipitation patterns. The Department continues to increase our involvement in the use of prescribed fire across land ownership types in New Mexico. In 2019, the Department entered into agreements with the Gila, Santa Fe and Cibola National Forests to support over 100,000 acres of prescribed fire activities in prioritized landscapes across each of these forests to enhance wildlife habitat and reduce the threat of catastrophic wildfire.

FISHERIES MANAGEMENT DIVISION (FMD)

Hatchery Operations: The Department continued with several facility improvements and plans for renovation of one facility. Hatchery improvements at Red River Hatchery included replacement of 3,000 feet of dilapidated pipeline with High-Density Polyethylene (HDPE) line. Several repairs were completed for adjacent pipelines upon discovery of leaks during excavation. The Department also expanded largemouth bass spawning operations at Rock Lake Hatchery. Project engineers are nearing design completion for complete rebuild of Glenwood Hatchery. Construction at Glenwood is anticipated in 2020. The Glenwood Hatchery will serve as the Department's Gila trout hatchery to support both recovery and recreational stocking in the Gila River Basin. The Department continued to raise Rio Grande cutthroat trout at Seven Springs Hatchery with egg take exceeding 400,000 in 2019.

Non-game Aquatic Conservation: The Department completed several conservation projects for non-game species. Two fish migration barriers were installed near Roswell, N.M. to protect Pecos pupfish from hybridization with the introduced sheepshead minnow. These barriers secure significant occupied habitat and were essential in meeting objectives identified in the Pecos pupfish conservation agreement. The Department also documented an abundance of Chihuahua chub within habitat restoration reaches. Final plans for a Chihuahua chub refuge pond on the River Ranch Wildlife Management Area were received. Participation in Texas hornshell monitoring and Candidate Conservation Agreement with Assurances (CCAA) activities continued.

Fisheries and Habitat Conservation: Notable accomplishments include habitat restoration, native trout restoration and tracking of YY-male brook trout stocked in New Mexico. The Department finalized plans to improve approximately 2 miles of instream and riparian habitat in the Abiquiu reach of the Rio Chama tailwater, near Espanola, N.M. Planned activities include instream habitat features, floodplain reconnection and non-native vegetation removal.



Native trout restoration was focused on additional Gila trout restoration efforts in Whitewater Creek and additional stockings of Rio Grande cutthroat trout into the Rito Frijoles, Bandelier National Monument and the Rio las Animas. Whitewater Creek was again treated with rotenone in the fall of 2019 to remove non-native trout. Once occupied by Gila trout, this stream system will increase the distribution of Gila trout by 23 miles, a significant contribution to recovery criteria included in the Gila Trout Recovery Plan. Field crews observed evidence of natural reproduction by Rio Grande cutthroat trout in the Rito Frijoles during supplementation efforts. Rio las Animas was stocked for a third time after the 2013 Silver Fire and subsequent ash flows removed non-native trout. These two new populations of Rio Grande cutthroat trout expand the distribution of Rio Grande cutthroat trout by an additional 24 miles.

The Department funded a study at New Mexico State University to track the effectiveness of YY-male brook trout for removing non-native brook trout from three New Mexico streams. This project is part of a larger investigation of this technology in cooperation with the states of Oregon, Washington and Idaho. Initial findings include fall recapture of approximately 30% of YY-males stocked in July 2018 and expression of milt by some YY-males.

ECOLOGICAL AND ENVIRONMENTAL PLANNING DIVISION (EPPD)

State Wildlife Action Plan Web Portal: New Mexico's State Wildlife Action Plan web portal was activated June 27, 2019, and is now available to the public. The approved 2017 major revision of the Comprehensive Wildlife Conservation Strategy provides the foundational content and the web portal enhances accessibility. The portal makes it easy to seamlessly move through the Plan to find information of interest and explore relationships between species, habitats, threats and conservation actions. A combination of menu dropdowns and active links help users navigate a detailed and comprehensive document and explore reference resources and related information sites such as National Vegetation Classification System, Biota Information System of New Mexico, the New Mexico Environmental Review Tool, Crucial Habitat Assessment Tool and the New Mexico statewide riparian map. The Conservation page on the Department's website has updated to incorporate the New Mexico Conservation Information System that lets users move easily between the information management tools created by the Department. Most of the planned improvements have been incorporated into the portal and the interactive map will be completed early in 2020.

Habitat Connectivity and Wildlife-Vehicle Collision Avoidance: The New Mexico State Legislature passed Senate Bill 228, known as the "Wildlife Corridors Act," that directed the Department of Game and Fish to collaborate with the Department of Transportation (DOT) to develop a wildlife corridors action plan that would identify highway crossings that pose a risk to successful wildlife migration. The Division worked with the DOT to assess responses to the request for proposals and identified a consultant to consolidate and analyze existing collision report data. The Division is working closely with DOT to guide preparation of the corridors action plan. Additionally, the Terrestrial Habitat Specialist is working to identify, secure and install an animal detection system for the Tijeras Canyon Wildlife Crossing.

Presenting Landscape-Scale Habitat Information: The Department added new wildlife habitat linkage areas into the WAFWA Crucial Habitat Assessment Tool (CHAT). The Department worked with Natural Heritage New Mexico to incorporate results of connectivity corridor simulations for multiple wildlife species that were



completed by the U.S. Forest Service Rocky Mountain Research Station. These data identify important wildlife core habitats and linkages for users from energy development and transmission, transportation, conservation planning and other arenas. CHAT updates also included new data on occurrences of Species of Concern, important habitats for aquatic Species of Economic and Recreational Importance and a revised rule set for rolling up component data into an overall Crucial Habitat layer. Updated CHAT data will also interface with information provided through the New Mexico Environmental Review Tool and other Department information sources that are made available to the public.

Share with Wildlife Project Proposals for 2020: The Department received 31 submissions of wildlife research, education, rehabilitation and habitat enhancement projects seeking funding through the Department's Share with Wildlife program. The focus of this donation-based program is non-game species that do not receive support from other sources of funding. The state legislature approved a budget increase for the program for Fiscal Year 2020, from \$165,000 to \$300,000. The topics of interest outlined in the call for proposals are based on Department staff, especially biologists, habitat specialists and conservation educators. The research and habitat topics identify information gaps that Department biologists need filled in order to better conserve and manage the non-game species of New Mexico. The Department identified 15 proposals for funding that included: an eDNA based inventory of Chihuahua chub and Rio Grande sucker, Aquatic Habitat Connectivity assessment for the Santa Fe National Forest, habitat associations and productivity of gray vireos, Arizona black rattlesnake status in New Mexico, status and distribution of terrestrial snails, genomic assessment of the least shrew, limiting factors for the Arizona montane vole, life history of the Peñasco least chipmunk, New Mexico wildlife data jam, Audubon's Outdoor Field Science Program, Bosque Education Guide and New Mexico STEM Ready and two rehabilitation facilities.

Statewide Riparian Habitat Map: The Department is preparing a statewide Riparian Habitat Map for New Mexico. In the current reporting period, the contractor, Natural Heritage New Mexico, produced the map for the Canadian River drainage and the upper Pecos River drainage above Santa Rosa, N.M. and conducted the field validation survey. Field surveys, to support map development, were completed in the Lower Pecos basin and plot data are being entered into the Natural Heritage plot database.

Forest Plan Revision: The Department is actively engaged with the U.S. Forest Service in the National Forest Plan revision process for five forests in New Mexico. The Department recently completed a simultaneous round of formal public comment on the draft forest plans and associated environmental impact statements for the state's three northern forests (Carson, Santa Fe and Cibola). The Department offers a unique statewide view to assess consistency among habitat management measures within the plans. Areas of emphasis for Department plan comments included sustainability and connectivity of wildlife habitats, focal species to be monitored for assessing success of forest management and interactions of wildland urban interfaces and desired habitat conditions. The Department anticipates future work with each national forest to help assess and incorporate public comments into the final plans. Release of the draft plans and environmental impact statements for the Gila National Forest and Lincoln National Forest, being completed by a contractor, are expected in 2020.



FIELD OPERATIONS DIVISION (FOD)

Overview: Field Operations has had a fairly busy fall hunting season. All species are currently being hunted across the state. Antelope season was unique this season due to the new hunt structuring the Commission approved last year, providing unlimited private land licenses and the elimination of the Antelope Private Lands Use System (A-PLUS). For the most part, hunting pressure across the state was low. Some Game Management Units (GMUs) saw a higher amount of hunter pressure due to antelope heard locations and lands that were not hunted under the previous system. Access to landlocked public lands has been an issue with the new system. The Department has been working with the State Land Office to resolve some of these issues.

Conservation Officers have spent over 12,000 hours in the field since July and have contacted over 16,500 sportsmen. Currently, New Mexico's Conservation Officers have issued over 670 citations for various wildlife violations, served nine search warrants and 16 arrest warrants. Officers have conducted over 50 special operations, ranging from plain-clothes angling checks, artificial wildlife operations, aerial flights to roadblocks and checkpoints.

Education and Outreach: Field Operations personnel have also conducted over 70 public outreach events since July. These events range from Hunter Education classes, youth hunts, archery programs and several fair and career talks. Field Operations continues to be a big proponent of the R3 program and promoting all involvement in the outdoors.

INFORMATION AND EDUCATION DIVISION (IED)

Sportfishing and Conservation Education: Department staff and volunteers partnered with Albuquerque Public Schools' Summer School Program to bring conservation education and skills training to 547 students and 40 teachers. Teachers were trained in conservation and aquatic education, spin-casting angling skills and wildlife inventory and monitoring techniques. Students in third through eighth grade participated in an eight-day fishing camp at Tingley Beach. Students had additional education opportunities including wildlife education and identification trunks, bird-watching kits, Backyard Bass spin-casting and making fish prints and mammal plaster tracks.

The Department also worked with many other school districts and local community events throughout the state to teach casting and fishing skills and conservation education. As of Nov. 19, there have been 1,339 fishing skills, 848 casting skills and 1,231 conservation education participants this fiscal year.

Hunter Education: The Department continues to partner with the Mule Deer Foundation's Discover Outdoor and Encourage Sportsmanship (DOES) program to offer ladies' hunter education opportunities. Through this partnership, the Department hosted two all-ladies hunter education camps this calendar year, one in May in Chimayo and another in September in Mimbres. Since the delivery and atmosphere are different from traditional classes, these camps target demographics that aren't reached through typical hunter education opportunities. The demographics reached during this year's camps included women ages 10 - 69, young girls from single-parent households, single mothers, Hispanic and Native American participants and new hunters.



The camp environment allowed women to be more comfortable while learning and allowed them to build confidence to hunt and be outdoors. The Department plans to continue this collaborative effort with DOES and offer up to two of these camps at various locations in New Mexico each year.

The Hunter Education Program hosted a youth incentive doe pronghorn hunt to eight recent graduates who earned a perfect score on both their written exam and firearms handling evaluation. Hunters ranged in age from 11 to 17. This was all of the participants' first opportunity to hunt and harvest a big game animal. The hunt was hosted on private property in northeast New Mexico and the licenses were sponsored by the New Mexico Wild Sheep Foundation. The harvest success rate was 100% and all youth gained new skills.

Advanced Hunter Education: To continue building the skills of hunter education participants, the Department hosted a ladies' pheasant hunt on the Boys and Girls Ranch south of Belen. This hunt was offered to women who had participated in one of the DOES basic hunter education courses. The hunt was open to six participants that ranged from 11 to 63 years of age. The hunters had limited experience and none of them had ever hunted upland birds.

The day and a half program, hosted at the ranch, started with seminars on firearm safety, management and physiology of pheasants, rules and regulations of upland bird hunting, hunting with dogs, how to prepare for an upland bird hunt, shotgun shooting instruction and a pheasant tasting. A guided pheasant hunt with dogs occurred the next day followed by one-on-one instruction on field dressing and proper care of harvested birds.

Shooting Range Development: The Stephen M. Bush Memorial Shooting Range is near completion and the community is very excited about this new addition.

The Department partnered with the city of Clovis to construct a shooting range on city-owned property. The planning phase for the Clovis Wing-Shooting Complex and Archery Range is wrapping up, with construction expected to start in 2020. The range will offer multiple shotgun fields including sporting clays, skeet and trap as well as a 90-yard archery range.

Off-Highway Vehicle Program: The Cedro Landscape Restoration Project was just completed. The U.S. Forest Service's Cibola National Forest started this multi-tiered restoration project on the Manzanita Mountain Trail System near Tijeras, N.M. This trail system has over 100 miles of multi-use, motorized trails that are highly popular in Albuquerque and the surrounding area. In February 2018, an agreement was signed by the U.S. Forest Service and the Department with a scope of work for the U.S. Forest Service to construct and perform minor restoration work along existing trails which included building connecting trails and closing some trails. The Department contributed \$200,000.00 of capital outlay funds from the Trail Safety Fund to fulfill this scope of work.

Volunteer Program: The Department continues to develop the Volunteer Internship Program. The number of volunteer hours contributed since Jan. 1, 2019 was just over 5,100 hours, which is a 34% increase over the 1,726 total hours for 2018. By creating more volunteer opportunities for students, the Department has been able to meet additional needs and provide students with valuable experience in their chosen career field.



ADMINISTRATIVE SERVICES DIVISION (ASD)

License Sales Continue to Rise: The Department's Administrative Services Division (ASD) continues to experience increases in license sales compared to the previous license year for the Department. The increase in licenses sold includes fishing licenses, combination game hunting and fishing licenses and big-game licenses. During the 2019 license year, the Department processed approximately 209,807 applications for special hunt drawings from 98,189 distinct customers. New Mexico continues to experience growth based on application numbers and revenue. Customers are applying for more hunts; however, the number of hunters remains similar to the 2018 license year (98,246).

WAFWA/CBMA: In September, several staff from ASD attended the annual Western Association of Fish and Wildlife Agencies (WAFWA) / Conservation Business Managers Association (CBMA) in Durant, Oklahoma. Staff considered the conference a success as it was very informative, especially with regard to electronic carcass tagging, license sales and the Recovery of America's Wildlife Act.

Carcass Tagging: ASD continues to work in conjunction with the Information Systems Division (ISD) and Field Operations to ensure the carcass tagging process improves for the future license years. ASD has created information displays for vendors regarding stamps and required documentation necessary during hunting season. In addition, ASD has developed Private Land Elk and Pronghorn instructional booklets to be distributed to vendors in the upcoming license year. The booklets will aid the experience for vendors and customers hunting on private land.

INFORMATION SERVICES DIVISION (ISD)

E-Tagging: For the 2019-2020 hunting season, the Department's Information Services Division (ISD) created a mobile app, NM E-Tag, for optional electronic tagging of deer and elk harvests. ISD worked with several other divisions including ASD, IED and Field Operations for input in the testing phase. The mobile app option was limited to deer and elk hunts only during the initial year to evaluate the app functions prior to a species-wide release. The decision of whether to use the e-tagging app or receive a traditional carcass tag was left up to each individual deer and elk hunter. As of Dec. 5, 2019, the NM E-Tag app has been downloaded to a total of 7,750 devices utilized by 5,008 customers this season and has been viewed as a successful test year.