



Summer/Fall 2015

New Mexico News
TWS News
Announcements

NEW MEXICO CHAPTER OF THE WILDLIFE SOCIETY

President's Message—Quentin Hays

Greetings New Mexico Wildlifers!

I trust that everyone had a great sunny season, and is enjoying the tail end of summer in New Mexico. Virtually the entire state benefited from a rainy spring and early summer that transitioned into a productive monsoon; it was certainly nice to move through a fire season without any large-scale blazes this year. Unfortunately, the precipitation largesse has been primarily restricted to the Southwest, as is evidenced by the extreme fire events taking place in California and elsewhere as I write.

Many of us are in the process of gearing up for the Annual Conference of The Wildlife Society which will occur next month in Winnipeg, Manitoba, and is sure to be an excellent event. The conference is taking place from October 17th through the 21st, and will include more than 500 educational sessions as well as 30 networking events. Students and professionals from more than 300 agencies, organizations and institutions have registered to participate.

Unfortunately, it looks like the New Mexico Chapter is not going to host a one-day state gathering this fall. With interest among members low, and the New Mexico Department of Game and Fish in the process of revising the State Wildlife Action Plan, it did not seem like good timing for the second iteration of a one-day event. Hopefully this is an event the Chapter can organize sometime in the near future, as it really is a boon for New Mexico wildlifers.

Please take the time to read the remainder of this newsletter, as there are a number of interesting articles related to wildlife work in the state. Of particular interest is an update from the Conservation Affairs Committee, which spent a good amount of time preparing comments on the recently approved NMDGF Bear and Cougar Rules update. Also included are calls for nominations for the Wildlife Professional and Outstanding Student awards – please think about nominating a deserving professional or student or at least distributing the announcements far and wide. This edition of the newsletter was prepared by our new editor, James Pitman, who is replacing Ryan Walker. Ryan is leaving New Mexico for a position in Idaho, and deserves all of our thanks for both his dedication to The Wildlife Society and the wildlife profession in our state. He plans to continue serving as Chapter secretary.

Finally, the Arizona Chapter of The Wildlife Society has announced that the 2016 Joint Annual Meeting will be held February 4th through 6th in Flagstaff, Arizona. The last JAM held in Flagstaff was a widely attended and well received event, and we should expect this go around to also be top notch. Please put it on your calendar now and plan on attending. Like always, if there is any way that the officers of the New Mexico Chapter can provide better service to you, our membership, please don't hesitate to let us know!

-Quentin

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Ginny Seamster, President-elect, virginia.seamster@state.nm.us

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Ryan Walker, Secretary, [new contact information will be posted on the chapter website](#)

James Pitman, Newsletter Editor, james.pitman@state.nm.us

Kristin Madden, Board Member, kristin.madden@state.nm.us

Krysten Zummo, Board Member, kzummo11@gmail.com

Scott Carleton, Board Member, carleton@nmsu.edu

New Mexico CAC Review of Bear and Cougar Rule Changes - Brian Hanson

On August 20, 2015 the New Mexico Conservation Affairs Committee provided review of proposed changes in Bear and Cougar Regulations in New Mexico. The comments were addressed to the Chairman of the New Mexico Game Commission, Paul Kienzle III. The Committee met with the New Mexico Department of Game and Fish (Department) on June 29 and review comments were solicited from all committee members. The entire 6 page response can be found on the Chapter website. A summary follows.

Changes being considered for Bear Management are –

Increase and decrease in harvest limits in specific Bear Management Zones (BMZ)

Move Game Management Unit (GMU) 48 from BMZ 3 to BMZ 4

Add GMUs 39 and 40 to BMZ 6

Modifications to season structure and restricting proportions of total harvest limits to specific hunt timeframes

The CAC complimented the Department on using updated habitat models and recent bear census techniques. In addition to using the most current information, the CAC suggested continued monitoring and data analysis since populations and habitat change. If there are any changes in regulations, then studies should assess their effectiveness.



Photo by Jim Stuart

The Department at the June 25 meeting indicated two goals for bears 1) ensure that bears persist and 2) ensure a bear hunting opportunity. Even though the percent take of the population in New Mexico is lower than other states, information was not provided to ensure a healthy population. The CAC recommend that measures be included that will ensure that the bear population and individual bears are healthy and contribute to a healthy ecosystem.

Since all bear management zones (BMZ) have not been recently surveyed, the CAC suggested the Department pursue updated density estimates for the remaining unsurveyed areas - e.g. Bootheel (BMZ 10), Gila Complex (BMZ 10), Zuni Mountains (BMZ 9), Mt. Taylor (BMZ 9), San Juan Complex (BMZ 1), east portion of Sangre de Cristo Complex (BMZ 7). The CAC also suggested the Department consider different minimum suitable areas for bears in different parts of the state to account for the variation in bear density. There is variation in bear densities across the state- with densities in the southern part of the state appearing to be lower than those in up north.

In the bear rule 19.31.11.10 section A, B, F, and O were suggested more clearly worded statements.

Cougar Rule – summary of proposed changes –

Changes being considered for cougar management are:

Allow use of traps and snares to harvest cougars

Prohibit the use of hounds during deer and elk archery seasons

Move GMU 18 from Cougar Management Zone I to CMZ H

Allow licensed deer and elk hunters on specific State Wildlife Management Areas who possess a cougar license to hunt cougars with the same weapon type as their license during the period of their hunt

In section P the CAC suggested some wording changes to clarify where traps could be used. The CAC included a caution that traps should target cougars and avoid trapping other species. The CAC mentioned a study from the U.S. Geological Survey that studied wolf trapping that would be useful. Also, the letter included the official position statement from The Wildlife Society titled: Traps, Trapping, and Furbearer Management. 2

Update to Bear Habitat Model – Ryan Walker

Black bears density estimates are derived through collecting field data on individually marked animals and applying population reconstruction or mark-recapture analyses to the data. Habitat models estimate quantity and location of bear habitat around the state, and bear density estimates generated for mountain ranges or specific habitat types can be extrapolated to similar areas to derive a statewide population estimate. In this article, we describe the process used to update the original habitat model using the most current technology available.

The original habitat model for black bear population estimation in New Mexico was generated as part of the 9 year Black Bear Ecology Study (hereafter 2001 study, Costello et al. 2001) conducted 1992–2000 . This habitat model utilized the New Mexico Gap Analysis Program (NM GAP) land cover classification which was designed to predict species distribution based on habitat type. The NM GAP model was used, in conjunction with information gathered from 316 radio-collared bears across 2 study areas and mast production potential by habitat type, to predict primary, secondary, and edge habitat classifications across New Mexico. NM GAP had several data limitations, and the habitat model was intended to be updated as new information became available. Advances in technology such as more detailed and accurate land cover classifications (the Landscape Fire and Resource Management Planning Tools (LANDFIRE) land cover classification), ability to identify individual animals through genetic techniques, improved spatial data, and more accurate statistical methods provide an opportunity to develop more accurate population estimates.

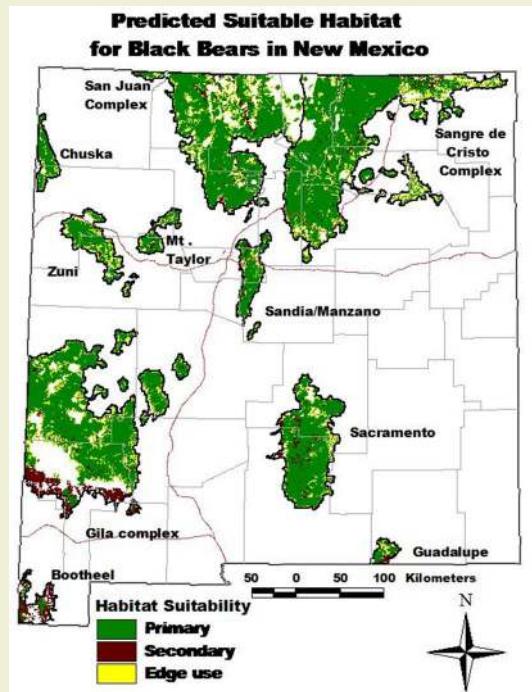
As a means of incorporating up-to-date and comprehensive landcover data, we employed LANDFIRE datasets to update the bear habitat model. These data result from the partnership between the U.S. Forest Service and Department of the Interior to provide consistent nationwide landcover mapping for fire management and general resource use, and are the most accurate and updated datasets available. These data are based on 30-m Landsat satellite imagery and have a reported accuracy of 0–100% depending on landcover type with forest and woodland landcover types having a user accuracy of 87.8% in the Southwest super zone.

Datasets are updated every 2 years, and we acquired the 3 most recent vegetation type datasets (i.e., 2008, 2010, and 2012) from the LANDFIRE website (<http://www.landfire.gov/>) for this analysis.

We determined suitability of available cover types based on food availability and their use by bears. Cover types and their corresponding values as bear habitat were modified from the 2008 to the 2010 model because cover types were further refined. We omitted cover types with <10 cells throughout the original LANDFIRE image if they were of questionable importance to bears. Cover types were classified either as bear habitat or non-bear habitat, and did not specify primary and secondary classifications as in Costello et al. (2001); instead we depended on the selection criteria to determine the primary, secondary, and edge designations.

We used the Extract by Attributes tool within the Spatial Analyst extension of ArcGIS to subset the LANDFIRE datasets based on the appropriate cover type value. Extracted values were reclassified into a single value and the 3 datasets were added together, keeping only the areas where all 3 datasets agreed.

We used the Aggregate tool in Spatial Analyst to sum across the final dataset by a factor of 7 to generate an output in 210-m-sided (0.0441 km^2) blocks. We selected 7 as the best aggregate factor from a test run across aggregate factors 2–10 based on knowledge of bear use across the state while balancing the smoothing effects of the aggregation. This also accommodated errors within the LANDFIRE dataset by eliminating small areas. - continued on next page



Predicted black bear habitat in New Mexico from Costello et al. (2001).

Update to Bear Habitat Model, continued

We visually inspected the distribution of aggregated values and assigned a cutoff of 25% as an acceptable breakpoint between “edge” and “primary” designations. Areas that fell below the break point were considered edge habitat and were not included in the final model areal calculations. To allow for areal calculations and patch size selection, we converted the model raster to a polygon feature class without simplification.

We created a filter from LANDFIRE 2012 existing vegetation cover data by creating a raster with human-dominated cover types, barren areas, and cover classes <20%. We only used the 2012 dataset as there are concerns about the validity of canopy cover data in earlier LANDFIRE datasets. We reclassified the appropriate cover classes to the same value, aggregated them to a 210-m cell, and kept the top 75% of cells (to match the habitat classification aggregation). We converted this to a polygon and filtered the model. We converted multipart features to single-part features prior to the selection process, and updated the area calculation. The same filter was used to further discriminate bear habitat in GMU’s 10, 12, and 13 except we included cover classes <30%. The GMU 10, 12, and 13 areas were replaced with the 30% model outputs in the final model area calculations.

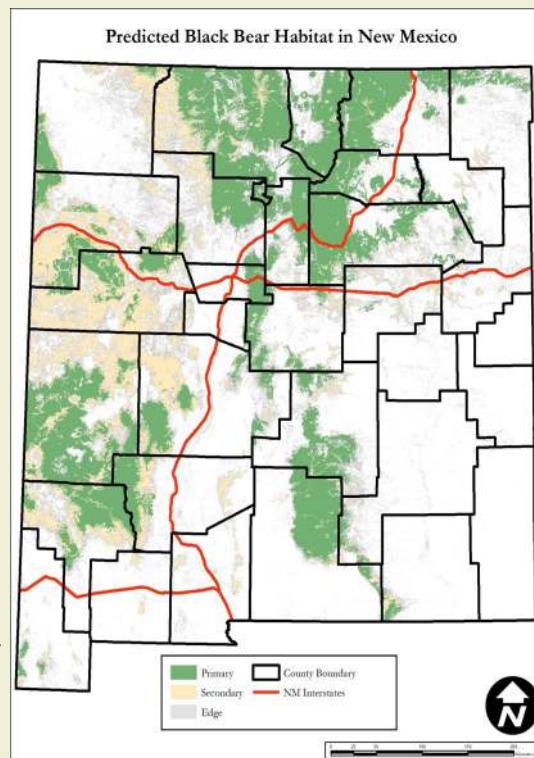
The Select Layer by Location and Select Layer by Attributes tools were used to set distance-based search criteria and patch size requirements, as follows:

All features $>200 \text{ km}^2$ were selected from the initial data set as main patches based on minimum habitat size needed to support a minimum viable population of 45–50 individuals. Use of a patch size smaller than the 300 km^2 used by Costello et al. (2001) is based on more accurate bear density estimates produced by the current bear density study, and documentation of larger distances moved as provided by GPS radio-collars. Inclusion of parcels $200\text{--}300 \text{ km}^2$ defined the Dry Cimarron area in GMU 58 and the Los Pinos Mountains in GMU 18 as bear habitat, both of which are known to sustain sizable bear populations. The Peloncillo Mountains, known to support a bear population, fell just below the 200 km^2 minimum, but were included due to proximity of large patches of bear habitat in Arizona.

We varied both distance to and minimum patch size within biologically reasonable values, with minimal impact on the resulting habitat model. We selected all features within 30 km of main patches that were $>25 \text{ km}^2$ because they included key areas with known populations of bears including the Oscura Mountains in GMU 19, Sierra Grande in GMU 56, and the complex around Mesa Rica in GMU 42. These values are greater than those used in Costello et al. (2001; all features within 15 km of main patches that were $>20 \text{ km}^2$) because data showing that bears move larger distances means that they can move between patches spaced more widely apart, and higher bear densities on the landscape mean that smaller patches can support the 1-2 bears necessary to be considered bear habitat.

All selected parcels included a 2 km buffer because black bears consistently use areas within 2 km of primary bear habitat. All holes smaller than 2 km² were closed with the Eliminate Polygon Part tool as a means of matching the 2 km “buffer” in the previous step and following a methodology similar to Costello et al. (2001).

We used the Intersect tool to combine the final selection output with the Game Management Unit shapefile. Total area (km²) for each GMU was generated using the Summary Statistics tool. Areas that did not meet the selection criteria as secondary habitat and areas that fell below the 25% aggregation were classified as edge habitat. We did not include secondary or edge habitats in area calculations, but have included them in the map as areas of potential use by bears. - continued on next page



Predicted black bear habitat in New Mexico 2015.

Update to Bear Habitat Model, continued

We verified bear mortality locations from 1994–2014 through spatial location and agreement with the reported GMU. There were 9,852 mortalities in the database, of which 197 (2.0%) had the UTM zone interpolated from the GMU and Easting, 91 (0.9%) were removed for falling outside the geographic bounds of NM, 1,039 (10.8%) were removed due to a disparity between the GMU and the UTM coordinate, and 643 (6.7%) were removed due to lacking or incorrect spatial information. We overlaid the 7,809 spatially-verified mortalities on the new habitat model as a check of model validity. Hunter harvest locations ($n = 6,863$) occurred in primary habitat more often than depredation ($n = 676$), road kill ($n = 239$), and other ($n = 31$) locations. The new model contained 83% of sport-harvest mortalities within primary bear habitat.

We could not directly compare our model validity results with those of the 2001 study (p. 100) due to differences in methodologies. Specifically, our verified sport-harvest location data set was from 1994–2014, as opposed to the 1990–1999 data set used in the 2001 study. Next, although both studies verified mortality locations using some of the same standards, there was not enough detail in the 2001 study report to know if the standards were identical. Differences in standards for which records to include and how modifications were made could lead to very different results. Finally, Costello et al. (2001) did not verify the accuracy of the habitat model. Rather, she created a generalized distribution map identifying major regions of bear habitat which comprise larger land areas than primary habitat predicted by the habitat model. When we overlaid the 1994–2014 verified dataset on the major regions of bear habitat as defined in the 2001 study, 81% of harvest locations fell within those regions, compared with 95% reported for the 1990–1999 dataset. When we overlaid our verified sport-harvest locations on primary habitat produced by the 2015 habitat model, 83% of sport-harvest mortalities were within primary bear habitat, compared with the 2001 model that contained 71% of sport-harvest mortalities. We do not know why there is a discrepancy in the sport-harvest locations found in major regions of bear habitat between the 2 data sets, and reiterate our concern that they were not created using the same standards and therefore none of the model validity results should be compared.

NMSU Students Receive Scholarships from Game and Fish - Jeremy Lane

New Mexico Department of Game and Fish recently presented five New Mexico State University students with scholarships, totaling over \$10,000. The ceremony took place at NMSU in Las Cruces prior to the summer break.

Clay Morrow of Alamogordo received an Ocie Gray Scholarship of \$1800. Clay is an outdoorsman with a passion for science, who frequently hikes and hunts. Clay's parents both graduated from NMSU with wildlife degrees, and instilled an interest in wildlife in nature in their son. As for future plans, Clay said, "I cannot wait to further my experience in, and understanding of, the world and look forward to becoming a wildlife scientist."

Miranda Butler-Valverde, a Las Cruces native, also received an Ocie Gray Scholarship for \$1800. Miranda "comes from a family of environmentalists and hunters," and has always been "intrigued by the wonders of the natural world," she said. In the last three years, she has interned at the Valles Caldera National Preserve in northern New Mexico, in the Everglades and in Namibia, Africa. Miranda hopes "to be a part of the efforts to conserve wildlife while looking out for the outdoorsman in all of us." - continued on next page



Recently retired Southwest Captain Ray Aaltonen (left), Clay Morrow (center) and Southwest Habitat Biologist Kevin Rodden (right).



Recently retired Southwest Captain Ray Aaltonen (left), Miranda Butler-Valverde (center) and Southwest Habitat Biologist Kevin Rodden (right).

NMSU Students Receive Scholarships from Game and Fish, continued

Ocie Gray was an employee of the Department of Game and Fish who died in a Department aircraft crash in 1960. He was a graduate of New Mexico State University, and friends and family established this scholarship fund to be awarded to a junior or senior enrolled in the Department of Fish, Wildlife and Conservation Ecology at NMSU.

Sarah Grubel of Alamogordo received a Bill Humphries Scholarship for \$3100. Sarah is pursuing her bachelor's degree in Fish and Wildlife Conservation Ecology, and she is an active member in the NMSU Student Chapters of The Wildlife Society and The American Fisheries Society.

Tyler Dallas of Rincon also received a Bill Humphries Scholarship for \$3100. Tyler's interests include wildlife, hunting and flyfishing, and he grew up participating in Youth Hunter Education Challenge (YHEC) competitions, in which, among the many events, contestants must identify wildlife and compete in shooting sports.



Recently retired Southwest Captain Ray Aaltonen (left), Sarah Grubel (center) and Southwest Habitat Biologist Kevin Rodden (right).



Recently retired Southwest Captain Ray Aaltonen (left), Tyler Dallas (center) and Southwest Habitat Biologist Kevin Rodden (right).

W.A. "Bill" Humphries was a Department of Game and Fish employee for 27 years, during which he ascended from patrolman to Assistant Director. Shortly after his death in 1973, this scholarship fund was established in his memory. The scholarship is awarded to a freshman or sophomore enrolled in the Department of Fish, Wildlife and Conservation Ecology at NMSU.

Jana Ashling from Minnesota received a Ladd S. Gordon Scholarship for \$1000. Jana grew up with a love for hunting, fishing and the outdoors, which inspired her to pursue a bachelor's degree in wildlife from South Dakota State University. She is currently working on her master's degree at NMSU, studying survival, mortality and habitat selection of mule deer.

Ladd S. Gordon was an employee of the Department of Game and Fish for 26 years. He was Director of the Department from 1963 through 1975, during which his foresight and leadership resulted in the development of the capital improvement bond program that has been used to purchase habitat, build dams and lakes and construct fish hatcheries. He was instrumental in wild sheep and elk re-introduction and the introduction of oryx and ibex into New Mexico. Mr. Gordon died in 1991, and in 1992 a scholarship fund was established in his memory. The scholarship is awarded to a graduate student enrolled in the Department of Fish, Wildlife and Conservation Ecology at NMSU.



Recently retired Southwest Captain Ray Aaltonen (left), Jana Ashling (center) and Southwest Habitat Biologist Kevin Rodden (right).

Game & Fish Purchase Rancho del Rio & Double E Ranch - Mark Watson

The New Mexico Office of Natural Resources Trustee and the U. S. Fish and Wildlife Service (Trustees) engaged in a Natural Resource Damage Assessment and Restoration (NRDAR) process for three large copper mines near Silver City. As part of the NRDAR, the Trustees assessed and quantified damages and injuries to wildlife and wildlife habitats from the operation of these three mines. As a result, the Trustees were awarded a financial penalty of \$5.5 million dollars from Freeport McMoRan Inc. to compensate the public for injuries to wildlife and wildlife habitat resulting from releases of hazardous substances. Damages from releases were primarily to migratory birds, so protecting and enhancing migratory bird habitat was the primary goal for the selection of projects to fund through the NRDAR process.

In January 2013, the Trustees released the Draft Wildlife and Wildlife Habitat Restoration Plan and Environmental Assessment for the Chino, Cobre and Tyrone Mine Facilities (EA). The EA requested the submittal of proposals for aquatic, wetland and riparian habitat restoration and acquisition projects, which would be competitively ranked and funded using the NRDAR settlement funds.

In 2011, the New Mexico Land Conservancy (NMLC), a land conservation trust in Santa Fe, placed a conservation easement on Rancho del Rio, a 1000 acre deeded property on the lower Mimbres River in Grant and Luna Counties. With landowner Gene Simon's passing in 2012, NMLC sought to implement the wishes of Gene and Elisabeth Simon to have Rancho del Rio purchased by a natural resource agency and managed in perpetuity to conserve the ranch's wildlife and wildlife habitats. NMLC requested assistance from New Mexico Department of Game and Fish (Department) staff to assess wildlife and habitat values of Rancho del Rio. Department staff documented high riparian habitat values on Rancho del Rio and a high number of Species of Greatest Conservation Need (SGCN) as identified in the Department's 2006 Comprehensive Wildlife Conservation Strategy for New Mexico. Bird SGCN documented on Rancho del Rio during the summer nesting season include Common Black Hawk, Montezuma Quail, Yellow-billed Cuckoo, Thick-billed Kingbird, Bell's Vireo, Lucy's Warbler, and Botteri's Sparrow.



Zone-tailed hawk soaring above the River Ranch.
Photo by Mark Watson.



Yellow-billed Cuckoo are listed as a SGCN. Photo by Mark Watson.



The River Ranch consists of 1,000 deeded acres on the lower Mimbres River. Photo by Jim Stuart.

As a result, Department staff assisted NMLC in developing a grant proposal requesting NRDAR funding to purchase Rancho del Rio. Rancho del Rio was subsequently assessed by the Trustees to have high conservation value for migratory birds and riparian habitat. In July 2014, River Ranch was purchased by the Department using \$350,000 of NRDAR funds provided by the Trustees, and \$235,000 of Share With Wildlife (SwW) Program funding. The SwW Program funds biological and ecological research, habitat conservation and restoration projects, conservation education, and wildlife rehabilitation organizations. SwW projects focus on conservation and management of wildlife species that are generally without other sources of funding. The majority of contributions to SwW are generated through a state income tax form check-off, federal reimbursements, and yields from the invested SwW Trust Fund.

During the NRDAR process, the Department's directorate toured the Double E Ranch with the Trustees to determine the wildlife conservation values of the property. The Double E Ranch is located along the southwestern edge of the Gila National Forest, approximately 4 miles east of the village of Gila, Grant County. - continued on next page

Game and Fish Purchase Rancho del Rio and Double E Ranch, continued

Approximately 3 miles of Bear Creek flows through the Double E Ranch, which is dominated by a mature Fremont cottonwood and Arizona sycamore riparian community that provides habitat for a high diversity and abundance of wildlife. Nesting bird SGCN documented include Montezuma Quail, Golden Eagle, Peregrine Falcon, Elf Owl, Bell's Vireo, Black-chinned Sparrow, and Hooded Oriole.

In November 2014, approximately 5,000 acres of Double E Ranch was purchased by the Department using approximately \$1.5 million dollars of NRDAR funding and \$1.5 million dollars of State Wildlife Grant funds. State Wildlife Grant (SWG) funding is an annual Congressional appropriation provided to state wildlife agencies to further conservation of SGCN. The Department is currently revising the ten year old CWCS and developing the State Wildlife Action Plan, which must be approved by the U.S. Fish and Wildlife Service, for the Department to continue to receive SWG funding. Management plans are being developed for both properties and the State Game Commission will determine activities that will be allowed on Rancho del Rio and Double E Ranch.



Bear Creek flows through the Double E Ranch. Photo by Kevin Rodden.



Mule deer on the Double E Ranch. Photo by Kevin Rodden.



Double E Ranch. Photo by Kevin Rodden.

Lincoln National Forest: Grindstone Wetland Restoration - Larry Cordova & Todd Rawlinson

The Grindstone Wetland Restoration Project is located in Game Management Unit 36. It is a historic wet meadow located at approximately 7200 feet above sea level. The area is adjacent to the community of Ruidoso, NM and provides browse and travel corridors for elk populations in a Ponderosa pine habitat type. In recent years, elk and deer populations were less visible on the landscape and more evident in the community of Ruidoso. Our goal was to create a restored wetland meadow to maximize prolonged water availability from snow and rainfall events within an area that provides adequate cover and forage for wildlife. Montane wetlands like Grindstone are created by natural saturation of moisture in the soil and provide ecologically important habitat for many species of wildlife.

The results of the Grindstone Wetland Restoration Project are significant and highly visible. The process included modifying and deepening two existing ponds by creating compacted clay basins with gradual slopes. A dozer and backhoe loader removed approximately four to five feet of clay from two wetlands. The clay was returned in six inch layers and compacted by the backhoe. A two foot minimum compacted clay depth was calculated for each basin and gradual slopes were designed to maximize overland water flow. All exposed soils were seeded with native grasses and forbs to prevent erosion. Over time, native wetland plants will establish themselves within and around the project area. Efforts were made to reduce any unnecessary erosion during construction by limiting vehicle pathways in the adjacent meadows. Engine Crews and the Smokey Bear Hotshots provided assistance with water deliveries for soil compaction efforts and a focused approach to use collected rainwater for cost savings. No live trees were removed during the project and all disturbed vegetative top soil was placed back in the wetlands to provide habitat for invertebrates and additional wildlife species. Further future area enhancements will include a post and pole fencing project and interpretive signage to educate the public about the area and the partners who helped with this project. - continued on next page



Grindstone Wetland Restoration Project. Photo by Todd Rawlinson.

Cooperating agencies that assisted in project implementation include the New Mexico Habitat Stamp Program funded by the New Mexico Department of Game and Fish. Planning and overhead costs were contributed in part by the Lincoln National Forest Wildlife Department. Cherokee Contracting Inc. provided their expertise and equipment. The Rocky Mountain Elk Foundation is providing future grant funding to assist with a fencing project and interpretive signage. A partnership with Eastern New Mexico University – Ruidoso and Bosque Wildlife and Habitat is providing survey efforts to detect seasonal use of this restored wetland by migratory and resident bats.

Forest Restoration & Spotted Owls: Increasing Resiliency While Recovering a Species - Quentin Hays

On forested lands throughout the Southwest, Mexican spotted owls (*Strix occidentalis lucida*) are a driver of management activities, as the current Recovery Plan (USFWS 2012) dictates forest treatment guidelines in designated habitat. These guidelines often prove restrictive for forest management and restoration programs, which serve to promote resiliency and mimic historic disturbance regimes.

The Collaborative Forest Restoration Program (CFRP) was legislatively established in 2001 to provide funding for forest restoration in New Mexico. A main goal of the CFRP is to engage disparate groups to facilitate the design and implementation of complex forest restoration projects that might not otherwise be accomplished. Because of the biological and cultural significance surrounding Mexican spotted owls (MSO), forest management actions in protected MSO habitat have been contentious since the species was initially listed under the Endangered Species Act in 1993. During that time, public land managers have struggled to monitor MSO in order to implement forest treatments in a way that does not prove deleterious to MSO populations, while sovereign land managers have conducted management activities in MSO habitat. To date, data sharing and collaborative work focused on addressing potential or actual impacts of forest treatments in MSO habitat has been nonexistent.

Funding from the CFRP has enabled implementation of a variety of forest restoration treatments in Mexican spotted owl Protected Activity Centers (PACs) on the Lincoln National Forest and Mescalero Apache tribal lands. The program of open-canopy cuts, mechanical thinning and prescribed fire builds upon and continues long-term demographic and prey-base monitoring initiated by the Rocky Mountain Research Station (USFS), and is helping to elucidate owl occupancy and demography in pre-treatment and post-treatment PACs, as well as possible relationships to prey dynamics. Implementation of forest treatments on Mescalero tribal lands will be completed in fall 2015; treatments on the Lincoln National Forest were completed in 2013. To date, no statistically significant changes in owl occupancy, demography, or prey abundance have been detected. However, MSO are long-lived and known to exhibit high site fidelity; long-term monitoring efforts are critical to determining treatment impacts.

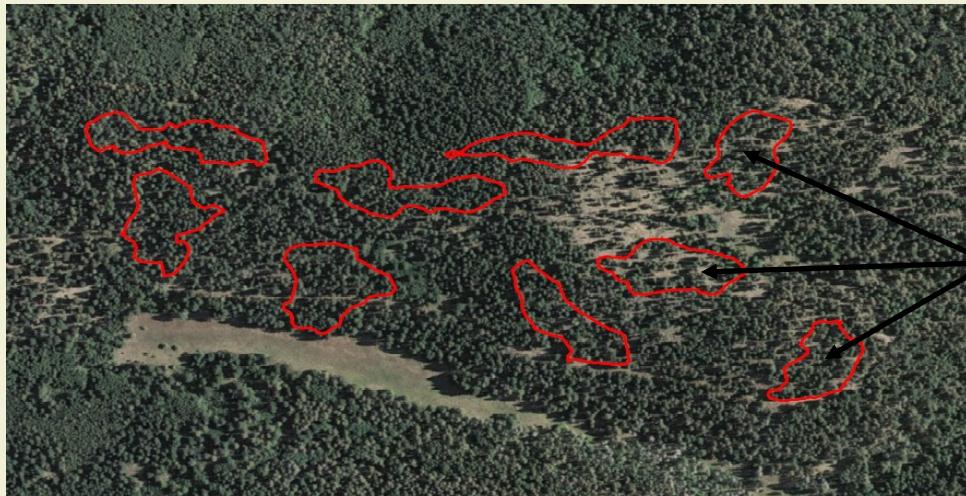


Prescribed fire on Mescalero tribal lands, fall 2014. Photo by Quentin Hays.

Representatives and specialists from across the spectrum of scientists and managers who work on forested lands impacted by MSO habitat restrictions were engaged in the development of this program. - continued on next page

Forest Restoration & Spotted Owls, continued

These include non-profit conservation groups, public land and wildlife management agencies, tribal representatives and scientists from academic institutions. This initiative provides a successful demonstration of linking forested landscape restoration work and conservation of a federally threatened species. Additionally, the results of this demonstration project should serve as a model for future landscape restoration work in spotted owl habitat in the Southwest, an issue of increasing importance in light of the increase of high-severity, climate-driven wildfire throughout the West.



Open-canopy cuts
on Lincoln National
Forest lands, com-
pleted fall 2013

Positions Recently Filled at New Mexico Department of Game and Fish

Leland Pierce - State Herpetologist



Leland Pierce, NM TWS member and past-president of the chapter, has accepted the challenge of following Charlie Painter as the state herpetologist with the New Mexico Department of Game and Fish. Leland has been with the department since 2003, the last ten years as coordinator of recovery of terrestrial species, which include amphibians and reptiles.

He is just getting organized but would be initially interested in a website to provide the citizens of New Mexico high quality online information concerning the amphibians and reptiles of the state; he is also developing ideas for assessing the response of such species to climate change. Like Charlie Painter, he is committed to educating and inspiring young professionals about these species. He is interested in re-starting the work his predecessor did on aquatic turtles and Sacramento Mountains Salamander and other species of concern would include Jemez Mountains Salamander, Boreal and Arizona Toad, Chiricahua and Northern Leopard Frog, Spotted Chorus Frog, Big Bend Slider, Rio Grande River Cooter, Sonoran Mud Turtle, Dunes Sagebrush Lizard, Gila Monster, garter snakes in general, and three rattlesnakes in particular, Massasauga, Arizona Black, and Mojave. Leland is hoping to present his plans for the position at the Joint Annual Meeting in February 2016.

Nicole Quintana - Big Game Program Manager



Nicole Quintana is the new Big Game Program Manager with the New Mexico Department of Game & Fish (NMDGF). She has been with NMDGF for 2 years, previously as the elk program coordinator. Prior to NMDGF Nicole was at Texas Tech University completing a Master's degree studying mule deer and working towards a Ph.D. evaluating elk population dynamics in northern NM. Nicole is "a strong supporter of the North American Model of Wildlife Conservation -- it remains the most successful in the world and hunters continue to be important conservation leaders." In her current position she plans to expand management driven research on big game and facilitate public understanding of ungulate populations in New Mexico. - continued on next page

Positions Recently Filled at Game and Fish, continued

Ryan Walrath - APLUS Manager



Ryan Walrath, National TWS member, has recently joined the New Mexico Department of Game and Fish as the Antelope Private Lands Use System (A-PLUS) Manager. Ryan was previously the Assistant Ungulate Research Biologist for the Wisconsin Department of Natural Resources.

He is just getting his feet under him since his start date in June 2015 but he is interested in continuing to manage the A-PLUS program as an equitable and flexible management system of pronghorn antelope and their habitats. To date he has assisted conducting annual antelope surveys and monthly telemetry flights in addition to the day-to-day tasks of managing the 1,240 ranches currently enrolled in the A-PLUS program. He looks forward to closely working with the regional wildlife biologists and statewide deer and antelope biologist to manage the pronghorn antelope population through biologically sound and effective harvest through sport hunting.



Ryan Darr - Open Gate Coordinator

Ryan Darr recently accepted the position of Open Gate Coordinator with the New Mexico Department of Game and Fish (NMDGF). Ryan previously spent almost two years as the Deer and Pronghorn Biologist for NMDGF. Prior to moving to New Mexico, he worked as a Wildlife Biologist with the Texas Parks and Wildlife Department focusing on private land management for four years.

As the Open Gate Coordinator, Ryan will work to increase public hunting, fishing, and trapping opportunities by leasing private lands for public use and to provide access corridors to landlocked public lands. He will also provide technical guidance and funding to owners of leased property to improve habitat quality for wildlife and fish, thereby helping to ensure an enjoyable experience for those using Open Gate properties. Ryan's efforts with the Open Gate program are funded by using a portion of the proceeds from the Habitat Management and Access Validation, a stamp purchased by all hunters, anglers, and trappers. Ryan's goal for the Open Gate program is to maximize availability and ensure quality of Open Gate properties and access corridors and to provide an enjoyable experience for the hunters, anglers, and trappers of New Mexico.



Casey Cardinal - Turkey and Resident Upland Game Biologist

In May, Casey Cardinal started as the Turkey and Resident Upland Game Biologist for the New Mexico Department of Game and Fish. Casey hails from Wisconsin, but has lived all over the country working with upland game species. In her free time, she enjoys camping, hiking, and hunting with her German Shorthaired Pointer.

In her new position, Casey will be working with wild turkey, quail, grouse, pheasants, and tree squirrels. She has spent her first few months getting acquainted with her program and the different habitats across the state. Over the next few years, Casey is interested in updating the current knowledge the department holds on turkey and upland game species. She is looking to improve statewide distribution maps, set up protocols for documenting population trends, and increase hunter survey participation for all of her species. Casey would also like to generate more habitat projects for upland species, and is very interested in collaborations to increase the benefits of these projects.

From the SW Section Representative to TWS Council - Carol Chambers

This one's about change, all of it great. Fall is on our doorstep, especially in northern Arizona where the temperatures are dropping to the 40s at night. We have some exciting changes coming to the Section with the election of Fidel Hernandez (TX) as the new Southwest Section Representative to TWS Council. I step down in October at the TWS annual meeting in Winnipeg and Fidel will be installed as the new Rep during the meeting. I've enjoyed serving the past 6 years and will look forward to continuing working with Women of Wildlife (WOW) and developing webinars for our Southwest Section series.

In more election news, John McDonald is the new Vice-president for TWS. John has served on Council for 6 years representing the Northeast Section. We thank Selma Glasscock (TX) who ran for TWS Vice-president and Kathy Granillo (NM) who ran for Southwest Section TWS Rep. We expect they will continue their many TWS contributions into the future.

We welcome 2 new student chapters. In Yuma, Arizona, Dr. Megan E. Lahti will serve as campus advisor for the Yuma Student Chapter of The Wildlife Society with support from wildlife biologist Lin Piest (Arizona Game and Fish Department). In Fort Worth, Texas, Dr. Victoria (Tory) V. Bennett will serve as campus advisor for the Texas Christian University Student Chapter of The Wildlife Society. These new chapters received interim status effective September 4, 2015. We congratulate both and ask that state chapters support these new student groups by providing hands-on field, lab, and classroom opportunities. TWS has partnered with Wildlife Services, and student chapters now have the opportunity to have a Wildlife Services professional speak during one of their meetings. Mariah Simmons (msimmons@wildlife.org) can provide a list of these representatives to student chapters on request.

More change – the Southwest Section has started a Webinar series. We are partnering with the Southwest Fire Science Consortium for our first webinar which will focus on wildfire effects on bats in the southwest (Sep 22).

A list of upcoming webinars (*tentative are in italics*) includes:

September 22: Immediate Post-Wildfire Effects on Bats in the Southwest, led by Erin Saunders (AZ) & Carol Chambers(AZ)

October: SW Section Geospatial Advisory Committee webinar, led by Leland Pierce (NM) & Ginny Seamster (NM)

November: Do's and don'ts of submitting your paper to be published, led by Janet Wallace (TX), WSB Managing Editor

December 16: Impacts of Thinning and Burning in Spotted Owl Habitat, led by Quentin Hays (NM)

January: How gizmos (PTTs, ICARUS program) change our understanding of habitat conservation, led by Dan Collins (NM)

On the parent TWS front, there are also changes. Laura Bies has officially stepped down as Government Affairs and Partnerships (GAP) Director and now manages TWS's Leadership Institute. Keith Norris who was Assistant Director has been hired as the new GAP Director. Keith recently discussed hunting and poaching for a radio show. His interview focused primarily on the benefits that hunting has for North American wildlife conservation. GAP staff also partnered the Association of Fish & Wildlife Agencies (AFWA) and the American Fisheries Society (AFS) to draft a web page focused on providing scientific information to agencies administrators regarding the impacts of lead on fish and wildlife management. GAP staff provided much of the background information, researching articles and developing the layout of the document. In addition, GAP staff researched, wrote, and produced 7 news articles on the website related to wildlife policy and TWS activities:

Horse and Burro Numbers Released in Tense Political Climate

Congressional Efforts to Modify the Endangered Species Act

Habitat Conservation and Sportsmen's Bill Introduced in House

Efforts Renewed for Rare Cats and Canids Conservation Fund

Land and Water Conservation Fund Expiration Nears

Federal Court Overturns FWS's 30-year Eagle Take Rule

Fish and Wildlife Service Expands Hunting and Fishing on Refuges

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From the SW Section Representative to TWS Council, continued

On the publishing front, we have changes in the positions for Editor-in-Chief (EIC) for the Journal of Wildlife Management (JWM) and Wildlife Society Bulletin (WSB). Paul Krausman takes over from Evelyn Merrill for JWM and David Haukos becomes EIC of WSB in January 2016 after Christine Ribic steps down. The Wildlife Professional (TWP) will be published as 6 issues per year in 2016 (up from 4). The first issue of 2016 marks the 10th anniversary of TWP and will feature a story on the next generation of wildlife biologists. You'll also see a change in the look of TWP in 2016.

On the financial front, TWS ended the fiscal year on a strong note, finishing the year within 0.04% of the projected expense budget and essentially doubling the operational surplus that was projected in the 2014-2015 budget. Net assets increased dramatically for the year, showing a 21% increase from July 2014 to the end of June 2015. Early indications thus far are that we are continuing the positive trends from last year.

We are still concerned about membership despite the small increase from 9,135 at the end of July to 9,303 at the end of August (+168). That result is an increase of 52 members (0.5%) compared to August 2014 when we had 9,251 members. Mariah Simmons has been working with the U.S. Forest Service on the USFS/TWS Native American Professional Development Research

Assistantship Program for 2016. The application period is now open through October 26, 2015.

The upcoming annual conference is in Winnipeg, Manitoba, Canada this year (October 17-21; <http://wildlife.org/2015conference/>). At the end of August, there were 976 attendees registered compared to 915 last year at this time. The current participants are from the U.S. (74%), Canada (24%), and international locations (2%). In addition, The Native Peoples Wildlife Management Working Group selected seven students for the Native American Student Travel Grants program. Funding provided to these students makes it possible for them to attend the Annual Conference. WOW will host a panel discussion (WOW! Women of Wildlife at Work) and mixer this year on Monday, October 19. This is the 4th year we have sponsored an event. Last year we did not offer a WOW event and were asked by so many women and men about the event that this year we're on again. This panel discussion is intended to build discussion and networking opportunities for women and men working in the wildlife profession. Panelists will address past, present, and future challenges and opportunities they experienced or expect to experience that affect career development. And then get ready for 2016. The annual conference for 2016 will be held in Raleigh North Carolina and 2017 is Albuquerque, September 23-27! TWS is currently scouting sites for 2018.

For fun, check out these web articles from August, with lots of Facebook likes: Using High-Res GPS to Study Thailand's Flying Foxes (<http://wildlife.org/using-high-res-gps-to-study-thailands-flying-foxes/>) had over 1600 likes. It is based on a paper published in JWM. Closer to home, read Recovery of Arizona Black-tailed Prairie Dog (<http://wildlife.org/spa-day-aids-recovery-of-arizona-black-tailed-prairie-dog/>) and Texas Chapter President provides testimony on CWD (<http://wildlife.org/texas-chapter-president-provides-testimony-on-cwd/>), featuring President Roel Lopez.

The Wildlife Society Southwest Section Chapters Hub continues to steadily climb in 'likes.' We increased from 392 to 418 since June. Please visit the site at <https://www.facebook.com/pages/The-Wildlife-Society-Southwest-Section-Chapters-Hub/205755042835210>. The TWS Women of Wildlife (WOW) Facebook page (<https://www.facebook.com/pages/TWS-Women-of-Wildlife/234411723382592>) also continues to grow steadily. We hit 1000 and are now at 1134 likes, up from 1089 in June. You can also see lots of great features at the TWS Facebook page with currently over 34,000 likes.

Thanks again for your support of TWS and the Section over the years. Continue to be involved – we need your help at the student, state, and section level. Contact me at Carol.Chambers@nau.edu or 928-523-0014 (office) with any comments or questions.



Excellence in Wildlife Stewardship Through Science and Education

Wildlife Professional Award - *Call for Nominations:*

The New Mexico Chapter of The Wildlife Society is soliciting nominations for the *Wildlife Professional Award*. This award will be presented February 5th, 2016 at the Joint Annual Meeting of the New Mexico and Arizona Chapters of The Wildlife Society and the Arizona/New Mexico Chapter of the American Fisheries Society in Flagstaff, Arizona. Please submit nominations by December 15th, 2015 to Quentin Hays, New Mexico Chapter of The Wildlife Society, 709 Mechem Drive, Ruidoso, NM, 88345 or electronically to Quentin.Hays@enmu.edu.

Description:

The *Wildlife Professional Award* is bestowed annually upon a wildlife professional for outstanding contributions to their field within the state of New Mexico. Awardees may be practitioners in research, education, management, conservation, law enforcement or legislation, but must have demonstrated excellence in their field related to wildlife in the state of New Mexico. The award is based on the significance of contributions made to the field, and may include contributions made over an entire career or over a shorter period of time. Awardees should be currently employed or recently retired wildlife professionals in one of the above-stated fields.

Nomination Format and Evaluation Criteria:

The nomination should be a brief (no more than 1 page), but persuasive narrative describing why the nominee is deserving of the *Wildlife Professional Award*. Nominations should address the specific significance of the contribution(s) to wildlife management or wildlife biology in the state of New Mexico for which the individual is being nominated. These contributions may include pioneering or innovative wildlife research or management strategies, performance exceeding normal job requirements, or exemplary leadership within the array of wildlife-related professions described above. Contributions may also include efforts leading to increased public awareness of a specific wildlife-related issue, or demonstrated excellence in surmounting obstacles in pursuit of improved management and/or conservation. Nominations should also include contact information for the nominee, as well as a synopsis of their educational and professional background.

Award Decisions

Members of the board of the New Mexico Chapter of The Wildlife Society review nominations prior to the Joint Annual Meeting, and present the award at this meeting. Additional information on awardees may be requested from nominators prior to the award presentation at the Joint Annual Meeting.



Excellence in Wildlife Stewardship Through Science and Education

Outstanding Student Award - *Call for Nominations:*

The New Mexico Chapter of The Wildlife Society is soliciting nominations for the *Outstanding Student Award*. This award will be presented February 5th, 2016 at the Joint Annual Meeting of the New Mexico and Arizona Chapters of The Wildlife Society and the Arizona/New Mexico Chapter of the American Fisheries Society in Flagstaff, Arizona. Please submit nominations by December 15th, 2015 to Quentin Hays, New Mexico Chapter of The Wildlife Society, 709 Mecham Drive, Ruidoso, NM, 88345 or electronically to Quentin.Hays@enmu.edu.

Description:

The *Outstanding Student Award* is given annually to a student who, while attending college or university in New Mexico, made a significant contribution to wildlife science, management or conservation within the state. Any undergraduate or graduate student may be nominated for this award, but students pursuing a degree in wildlife or a wildlife-related field will be given preference. The *Outstanding Student Award* may be given to students for a single, exemplary act, or for a more long-term demonstration of outstanding performance. Students are eligible for one year following graduation from a New Mexico institute of higher education.

Nomination Format and Evaluation Criteria:

The nomination should be a brief (no more than 1 page), but persuasive summary of the contributions made by the student that are deserving of the *Outstanding Student Award*. Nominations must also contain a short curriculum vitae (CV) from the student (no more than 2 pages); evidence of academic performance such as grade point average should be included. Selection of award recipients is based on one or more of the following criteria: contributions to the classroom, significant undergraduate or graduate research, extracurricular projects that contribute to wildlife conservation efforts in New Mexico, involvement with a student chapter or the New Mexico Chapter of The Wildlife Society, and overall academic performance.

Award Decisions

Members of the board of the New Mexico Chapter of The Wildlife Society review nominations prior to the Joint Annual Meeting, and present the award at this meeting. Additional information on awardees may be requested from nominators prior to the award presentation at the Joint Annual Meeting.

Quivira Coalition Conference November 11-13th

The Quivira Coalition is a non-profit organization based in Santa Fe with the mission of building economic and ecological resilience on western working landscapes. The 2015 Quivira Conference will be held in Albuquerque on November 11th through the 13th at the Embassy Suites Hotel. This three day conference will consist of a variety of workshops and plenary sessions and includes topics such as regenerating degraded landscapes, the fundamentals of soil, monarch butterfly habitat restoration, sage grouse habitat restoration, GIS use for planning and monitoring conservation and agricultural work, and progressive livestock grazing management. The registration deadline is November 3rd; however, registration will close early if the conference capacity is reached. Registration fees for the plenary sessions are \$153 for members and \$170 for non-members. Annual membership dues are \$30. Costs for the workshops range from \$45 to \$110, with some workshops including lunch. Online conference registration and membership information can be found at the Quivira Coalition website: <<http://quiviracoalition.org/index.html>>.

Playa Lakes Joint Venture Seeks Grant Proposals

The Playa Lakes Joint Venture is seeking grant proposals for projects that promote habitat conservation for wintering, migrating and breeding birds in portions of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, and Texas. There are three categories — habitat conservation, research, and outreach — with the majority of funding dedicated to habitat conservation projects. Grants are limited to no more than \$25,000 per project. Applications are due by 5pm MST on November 20, 2015. Grant applications can be downloaded online at the PLJV website: <<http://pljv.org/>>.

Wildlife Ecologist's Spatial Analytic Needs Survey

What kind of tools should be in a well-rounded wildlife ecologist's spatial toolbox? As part of a curricular review for the Wildlife Department at Humboldt State University, they are conducting a survey to understand the spatial analytic needs of wildlife ecologists. They would greatly appreciate your participation in an online survey to identify the most important spatial approaches, theories, techniques, and programs for future wildlife ecologists. This work is part of a larger effort to craft a "Spatial Toolbox" for wildlife professionals. Your participation is completely voluntary, and should take no more than 20-30 minutes. The survey can be found here: <<http://goo.gl/forms/Mc20yKIJtI>>.

Assistance With NAWCA Grants

The Intermountain West Joint Venture (IWJV) can help you with your North American Wetlands Conservation Act (NAWCA) grant application. They can help provide feedback on the overall proposed project, suggest potential additional partners, discuss bird habitat values and linkages, and provide assistance in preparing the application. The IWJV reviews and ranks all proposed NAWCA projects within its boundaries, so if you are planning on submitting a proposal, please notify the IWJV as soon as you are able. More information can be found here: <<http://iwjv.org/news/need-help-small-nawca-grant>>.

Research Assistantships Available for Native American Students

The U.S. Forest Service (USFS), through partnership with The Wildlife Society, is sponsoring a research assistantship program for Native American students. Please encourage any Native students in natural resource fields to apply for this unique opportunity. Applications are due Oct 26th. The application is available at: <<http://wildlife.org/research-assistantships-available-for-native-americans/>>.

Final Reminder: 22nd Annual TWS Conference October 17-21st

The Wildlife Society's 22nd annual conference will be held October 17-21st in Winnipeg, Manitoba. Check out the conference website for a detailed schedule and information on speakers, workshop, exhibitors, and more! Detailed information on the conference can be found here: <<http://www.twsconference.org/>>.

NEW MEXICO CHAPTER OF THE WILDLIFE SOCIETY

New Mexico Chapter -
The Wildlife Society
P.O. Box 35936
Albuquerque, NM 87176

NM-TWS is an active affiliate of The Wildlife Society that is dedicated to promoting sound management and conservation of New Mexico's wildlife resources.

Membership is open to all professionals, students, and laypersons interested in wildlife research, management, education, and administration.

Our chapter works to maintain communication among wildlife professionals; encourages communication between those professionals and the general public; supports continuing education through grants, workshops, and regional meetings; encourages student involvement in the wildlife profession; and actively participates in shaping management and conservation policy through letters, public statements, and resolutions.

We're on the Web!

Check out our new website that was created last year. <http://wildlife.org/nm>



Membership Form

First name				
Last name				
Organization				
Address				
City	State	ZIP		
Telephone (day)	Fax			
Email				

Please join or update your membership today!

Thank You!

Please complete the membership form and mail it with your \$8 dues to:

**The Wildlife Society
New Mexico Chapter
P.O. Box 35936
Albuquerque, NM 87176-3593**

*For updates to your mailing or email address
please contact Dan Collins, dan_collins@fws.gov*