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UPLAND GAME TRAP, TRANSPLANT & MONITORING

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Job Progress Report Federal Aid in Wildlife Restoration Grant W-48-R-40, Sub-Grant III Project 2, Job #1

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STATE: Nevada

GRANT: Nevada Wildlife - Game Management - W-48-R-40

SUB-GRANT III: Wildlife Population Management

PROJECT NO. 2: Upland Game Trapping, Transplanting and Monitoring

JOB 1: Upland Game Trapping, Transplanting and Monitoring

PERIOD COVERED: July 1, 2008 - June 30, 2009

SUMMARY

The Nevada Department of Wildlife (NDOW) remains committed to investigating opportunities for upland game population establishment and enhancement for the recreational and aesthetic enjoyment of the public. Every two years, NDOW establishes a Biennial Upland Game Release Plan where specific areas and species of upland game are identified for translocation. These sights are assessed for habitat condition, extent of habitat, and predator composition. In addition to these factors, extensive pre-planning is conducted to obtain the necessary approvals from federal agencies such as the Bureau of Land Management and the U.S. Forest Service when recommendations are made to release upland game species on federally administered lands. Recent emphasis for NDOW has centered on establishing or augmenting populations of mountain quail (*Oreortyx pictus*), California quail (*Callipepla californica*), and ruffed grouse (*Bonasa umbellus*). NDOW continues to pursue source stock opportunities to re-establish populations of Columbian sharp-tailed grouse (*Tympanuchus phasianellus*) within suitable habitats in northeastern Nevada; however, obtaining that source stock remains challenging as populations elsewhere have been considered low. To a lesser degree, efforts also continue to establish or augment populations of wild turkey in appropriate areas of Nevada.

In 2009, the Oregon Department of Fish and Wildlife (ODFW), in conjunction with a contracted capture vendor, provided Nevada with 100 mountain quail. These birds were captured late in the fall from the Roseburg area and over-wintered at the Mason Valley Wildlife Management Area. A total of 87 mountain quail were released in the Stillwater Range of Churchill County in early April (post mortality due to predation and inadvertent flight accidents). Over a two year period beginning in 2008, a grand total of 184 mountain quail have been released in the Stillwater Range. For the 2009 release, 26 mountain quail (30%) were radio-marked with VHF transmitters. Follow-up conducted on the birds showed that they utilized more mesic upper elevations during the late spring through early fall months and reproduction was documented. Funds to pay the private contractor for capture of these birds were made available through the Nevada Upland Game Stamp program.

NDOW personnel once again participated in a reconnaissance effort to determine whether or not mountain quail populations at the China Lake Naval Air Weapons Station located near Ridgecrest, California warranted a capture effort. This investigation again revealed below average numbers of mountain quail and further efforts were canceled.

During the winter of 2008-09, the Western Region section of NDOW again fielded several complaints from urban and suburban situations where numerous California quail were found to

be negatively affecting landscaping and ornamental plants. NDOW was able to work with residents to trap California quail for translocation throughout the state. Approximately 460 quail were captured from two different sites during the trapping effort. These birds were liberated at three different sites in the Western Region (Santa Rosa Range, Minor Ranch near Dayton and Big Hog Ranch Creek near Gerlach, NV) and two different sites in the Eastern Region (Cottonwood Creek and Lamoille Creek on the west side of the Ruby Mountains in Elko County).

Additionally, a total of 59 Rio Grande turkeys consisting of 23 males (jakes) and 36 females were released along the West Fork of the Carson River south of Gardnerville. These birds were released on private lands with suitable habitat and a cooperative agreement was developed between the Department and the landowner. Turkeys were provided by the California Department of Fish and Game and the National Wild Turkey Federation. A total of 8 turkeys were outfitted with telemetry devices; however, four of the devices appear to be non-functioning. To date, these turkeys have dispersed throughout available habitats along the Carson River through Gardnerville and into the East Fork of the Carson River as well.

In state fiscal year 2010, NDOW is planning to proceed with an extensive ruffed grouse capture effort in the Bull Run Range located in northern Elko County. We will be engaging in this effort to obtain enough birds for release into the northern Toiyabe Range located in Lander County. In addition to this work, we also anticipate receiving another 100 mountain quail from the Oregon for potential release in Humboldt County in the spring of 2010. Lastly, we also expect to receive approximately 50 Rio Grande turkeys from the Utah Division of Wildlife Resources. These birds will be used to augment a population of wild turkeys in Lincoln County located in southeastern Nevada. Aside from these suspected release complements, NDOW will continue to coordinate with the Idaho Department of Fish and Game and Utah Division of Wildlife Resources to obtain Columbian sharp-tailed grouse (if current populations allow) for translocation to Nevada.

OBJECTIVES

Columbian Sharp-tailed Grouse

1. Monitor the existing, re-established population and, if birds become available, re-establish Columbian sharp-tailed grouse (CSG) within those portions of their former range that presently constitute suitable habitat.
 - a. Determine areas of known or suspected former range of CSG which may now be capable of supporting viable populations of this species due to past and present land use practices that have resulted in habitat changes.
 - b. Obtain adequate numbers (preferably 50+) of CSG for reintroduction into selected suitable habitats in Nevada from any available source.
 - c. Monitor new populations throughout the year to determine seasonal habitat preference and relative success of the release.

Chukar

1. Establish, re-establish, or augment chukar populations in Nevada to levels capable of supporting hunting.
 - a. Trap chukar from outside or within Nevada to transplant to areas of extremely low densities following severe droughts or winters or into the vicinity of recently constructed water developments where few or no chukars currently exist.

Mountain Quail

1. Re-establish mountain quail into suitable habitat within each Region, attempting to match source population habitats with release site habitats.
 - a. Trap mountain quail from available sources and transplant to sites where historic populations of mountain quail existed and/or where habitat is similar to source populations and provides the necessary components for sustainability.
 - b. Determine areas that may be capable of supporting viable populations of this species where land use practices provide suitable habitat.
2. Coordinate with appropriate land management agencies, private landowners and tribal governments to conduct habitat improvement projects for mountain quail.

California Quail

1. Maintain and restore populations of California quail in Nevada following losses due to drought or severe winters.
2. Establish California quail populations in suitable habitats in Nevada where they do not currently exist.
3. Work with federal land management agencies and private landowners to improve habitat conditions for California quail on public and private lands.

Wild Turkeys

1. Establish wild turkey populations in areas with suitable habitat, preferably on suitable public lands managed by the Bureau of Land Management or U.S. Forest Service.
2. Maintain and/or augment existing turkey populations on Nevada's Wildlife Management Areas that provide adequate amounts of quality habitat.
3. Provide a source of turkeys for future transplants.
4. Provide a wildlife resource that can serve both consumptive and non-consumptive desires of the public.

PROCEDURES

1. Personnel should first consult the Nevada Upland Game Species Management Plan (2007) for guidance regarding the species of interest. Habitats should be evaluated prior to release to ensure that the necessary vegetative components are in place to support healthy populations of certain upland game. A prioritized list of potential release sites will be provided in the biennial Upland Game Release Plan.
2. Arrangements through cooperative agreements, contracts or other methods (e.g. letter of authorization) will be made with state or provincial wildlife agencies for the acquisition of Columbian sharp-tailed grouse, ruffed grouse, chukar, California quail, mountain quail and turkeys.
3. Coordination efforts will be made with the appropriate federal land management agencies and/or private landowners prior to release to facilitate an expedient and successful project. This will include obtaining the necessary NEPA compliance documents (Categorical Exclusions or Environmental Assessments) or cooperative agreements well in advance of the release.
4. Upland game will be acquired through trapping operations involving Nevada Department of Wildlife personnel, other state wildlife agency personnel or contract wildlife capture vendors qualified to conduct the work.

FINDINGS

Ruffed Grouse

Trapping and Transplanting

No ruffed grouse were captured or transplanted in FY09.

Monitoring

Methods to monitor ruffed grouse distribution and long-term sustainability include spring listening stations, radio-marking, and returns from harvest questionnaires. No releases of ruffed grouse have been made since 2004 when 4 grouse were released in the Independence Range of Elko County. Prior to this release, the most recent previous release was of 26 grouse that were released in the Santa Rosa Range of Humboldt County in 1989. The least labor intensive method of monitoring the success of the few ruffed grouse releases (n=8) is through our harvest questionnaire. During the 2008-09 season, expanded data indicated that 309 ruffed grouse were harvest by 309 hunters that expended an estimated 670 days in the field. The majority of harvest came from Elko County (n=268). Field observations and various reports from hunters indicate that ruffed grouse are well established in release sites and adjacent areas. Future releases in appropriate habitats appear to be worthy of effort.

In order to determine the long-term sustainability and distribution of ruffed grouse in the Santa Rosa Range of Humboldt County, NDOW requests that persons report their harvest or sightings in this area to the Field Office located in Winnemucca. During the 2008 hunting season, four reports were received from September through October in which a total of 7 ruffed grouse were harvested from various locations including Road Creek, Cabin Creek, Deep Creek and Round Corral Creek. These areas seem to be population strongholds; however, they are also accessible by vehicle. Other remote drainages are also assumed to hold ruffed grouse, but receive little hunting pressure. Drumming surveys were not conducted during the spring of 2009.

Columbian Sharp-tailed Grouse

Trapping and Transplanting

No sharp-tailed grouse were captured or transplanted in FY2008.

Monitoring

There are two known leks that have been documented in the Snake Mountains north of Wells, Nevada. One of the leks is considered active and the other inactive. During the spring of 2009, one lek visitation was made from the ground in April. A total of 3 sharp-tailed grouse were flushed from the known active lek. No other new leks were located or other concentrations of birds observed.

Chukar

Trapping and Transplanting

No trapping or translocation efforts for chukar partridge were made in Nevada in FY2009.

Monitoring

Chukars have been established in all counties of Nevada for many decades. Monitoring is conducted during summer fieldwork and reported in the *2008 Upland and Migratory Game Bird, Rabbit and Furbearing Mammals Harvest Data and Population Status Reports* federal aid report (W48-R-40, Sub-grant I S&I – Project 2 & 3).

Mountain Quail

Trapping and Transplanting

Efforts continued in state fiscal year 2009 to re-establish a population of mountain quail in the Stillwater Range located in Churchill County. For the second consecutive year, 100 mountain quail were received from the Oregon Department of Fish and Wildlife (ODFW). These birds were overwintered at the Nevada Department of Wildlife's (NDOW) Mason Valley Wildlife Management Area located in Lyon County. Birds were provided ample amounts of tree and shrub cover and fed medicated Purina Game Bird Chow to treat and control minor coccidiosis levels. During the holdover period, a total of 13 mountain quail died from various events including skunk predation and accidental mortality from flying into the wire mesh on the side of the pen. Funding to pay for capture costs (\$55.00/bird) were provided by the Nevada Department of Wildlife's Upland Game Stamp program.

On March 31, 2009, 26 mountain quail were captured in the pen and radio marked with ATS model PD-2C transmitters prior to release. These transmitters have a relatively short battery life (approximately 6 months) so intense follow-up is required to obtain useful data. A total of 87 mountain quail were released at the same time and location in Freeman Creek on April 1, 2009. No additional mortalities were noted after transportation to the release site. Over the course of two years, 184 mountain quail have been released in this particular drainage. Some calling was noted but the birds seemed to disperse quickly.

The habitat type in Freeman Creek consists of a perennial water source, currant, willow, sagebrush, woods rose, chokecherry, cottonwoods and numerous grasses and forbs. In addition to these features, the north facing slope in the upper portion of the canyon is characterized by older growth pinyon trees with a good understory of shrubs and grasses. Aside from these habitat characteristics, this site was also chosen because of the inaccessibility of the canyon and the relatively steep terrain. No roads extend up the bottom of the canyon so human disturbance should not be a risk factor or threat.

This release location was historically the last known area mountain quail occupied within the Stillwater Range. This information of known locations of mountain quail was provided by the Kent family. The Kent family has ranched in the area for over 100 years and they noted that a severe winter in 1948-1949 caused a major decline in the mountain quail population. After consultation with Bruce Kent, it was decided that the best opportunity for reestablishment of a

robust mountain quail population would be to introduce them back into Jobs Basin and Freeman Creek, which constituted a core portion of the historic range in the Stillwater Range. A follow-up release of a similar amount of birds in 2009 and adequate precipitation should help bolster this population.

In addition to the Stillwater Range translocation effort, NDOW personnel also conducted reconnaissance at the China Lake Naval Air Weapons Station located near Ridgecrest, California to determine whether or not a capture effort for mountain quail was warranted. This area has been utilized as a source stock of both mountain quail and chukar in past years. NDOW biologists spent two days surveying water developments on the range looking for mountain quail or sign of the birds. Over this period, low numbers of both mountain quail and chukar were observed relative to prior years when densities of both were high. It was determined that any capture efforts would not be successful at reaching objectives so no further actions were planned.

Monitoring

Monitoring of mountain quail at the Stillwater Range release site consisted of follow-up, both on-the-ground and aerial, of radio marked birds. The limited accessibility of the release site and the rough terrain made consistent follow-up very difficult; however, over the course of the spring and summer of 2009, several locations were obtained. Monitoring radio-marked birds showed that they moved up considerably in elevation over the course of the late spring and summer as suspected. Some observations of broods were noted; however, dense cover in the riparian area made it difficult to find nest locations.

California Quail

Trapping and Transplanting

The Nevada Department of Wildlife headquarters and Western Region office in Reno received several complaints from residents of the Reno/Carson City area that were inundated with California quail during the winter of 2008-09. The complaints usually involved neighbors who were feeding birds during the winter. Winter feeding often attracted large number of quail (>300) that would stay in the area and affect lawns and landscaping. Over the years, NDOW has used limited personnel time as well as volunteers to set up traps and remove excess quail for translocation to remote areas with suitable habitat.

During January and February of 2009, approximately 460 quail were captured from two different sites (one in Reno and one in Carson City). In the Western Region, a total of 219 quail were released at the following locations: 29 birds in the Granite Range, Washoe County; 45 birds at the Minor Ranch near Dayton, NV; 145 birds released at several canyons on the west side of the Santa Rosa Range in Humboldt County. Approximately 242 quail were released in the Eastern Region on the west side of the Ruby Mountains in Elko County. Approximately 175 of these birds were released in January of 2009 along Cottonwood Creek above the former Zunino Ranch. The current landowner is dedicated to providing adequate habitat and winter feed during extreme conditions. In addition to this release, another 67 quail were released near Lamoille Grove just west of Lamoille Creek. The landowner at this site is also dedicated to providing suitable habitat and wintertime feeding if conditions warrant.

Monitoring

Quail observations are reported in the *2008 Upland and Migratory Game Bird, Rabbit and Furbearing Mammals Harvest Data and Population Status Report* (W48-R-40, Sub-grant I S&I – Project 2 & 3).

Merriam's/Eastern Turkeys

Trapping and Transplanting

No trapping or translocation efforts for Merriam's turkeys were made in Nevada in FY2009.

Monitoring

Monitoring is conducted during summer fieldwork and reported in the *2009 Upland and Migratory Game Bird, Rabbit and Furbearing Mammals Harvest Data and Population Status Report* (W48-R-40, Sub-grant I S&I – Project 2 & 3).

Rio Grande Turkeys

Trapping and Tansplanting

One release of Rio Grande Turkey was made during state fiscal year 2009. This release took place in southern Carson Valley located in Douglas County. The total release complement of 59 birds consisted of 23 jakes (males) and 36 jennys (females). Trapping was conducted by the National Wild Turkey Federation in cooperation with the California Department of Fish and Game. Samples were obtained from approximately 10% of the total number of birds captured and a battery of tests was conducted for several diseases by the Wildlife Lab in Rancho Cordova, California. All birds were cleared prior to release in Nevada.



Rio Grande turkeys in Carson River corridor near release site.

Monitoring

Some limited monitoring was conducted in association with the Carson Valley release. Four turkeys were radio-marked with necklace transmitters from Advanced Telemetry Systems (ATS). Several on-the-ground follow-up efforts were conducted that indicated the birds were utilizing much of the Carson River corridor from the Nevada/California state line to Gardnerville and beyond. Some limited complaints were received from Gardnerville residents who witnessed turkeys at bird feeders.

RECOMMENDATIONS

1. Continue to pursue funding sources for trapping and transplant operations.
2. Continue coordination efforts to obtain Columbian sharp-tailed grouse with other states and provinces possessing the species. Develop trade or purchase agreements.
3. Continue mountain quail and California quail reestablishment efforts into suitable habitat as well as seek new sources of mountain quail where habitats closely match those found in Nevada.
4. Identify suitable release sites for ruffed grouse and continue coordination efforts to obtain ruffed grouse with other states possessing the species.
5. Pursue coordination and cooperative agreements with other states to resume efforts to establish ruffed grouse populations in suitable habitats.
6. Continue or establish new cooperative agreements with appropriate universities to conduct research and monitoring of relocated sharp-tailed grouse, mountain quail and ruffed grouse.
7. Monitor the success of recent wild turkey releases through follow up of radio marked individuals and harvest of marked birds. These efforts can help determine future management needs and direction.
8. Expand water development efforts and maintain existing developments throughout the state to provide increased opportunities for transplanting and/or maintaining upland game bird populations.
9. Coordinate with federal land management agencies and private landowners to improve habitat conditions, especially water sources such as natural springs, for upland game species.